

Teachers Advisors, LLC

730 Third Avenue
New York, NY 10017- 3206

(212) 490-9000

www.tiaa.org

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This Brochure provides information about the qualifications and business practices of Teachers Advisors, LLC (“TAL”). If you have any questions about the contents of this Brochure, please contact us at (212) 490-9000. The information in this Brochure has not been approved or verified by the United States Securities and Exchange Commission or by any state securities authority.

Additional information about TAL also is available on the SEC’s website at www.adviserinfo.sec.gov.

TAL is a registered investment adviser. Registration of an investment adviser does not imply any certain level of skill or training.

Item 2 Material Changes

This Brochure was amended on June 20, 2017 from the previous update of this Brochure dated June 02, 2017.

Item 9 – Disciplinary Information – was updated. The item relating to the resolution of Teachers Insurance and Annuity Association of America, Docket Case Number: State of NY Stipulation No. 2007-0810-S, has been deleted. The resolution occurred 10 years prior and is no longer required to be disclosed.

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Item 4 Advisory Business

Teachers Advisors, LLC (formerly, Teachers Advisors, Inc.) (“TAL”) offers or provides its services to a wide range of client types including : (i) registered investment companies, (ii) institutional asset management businesses including unregistered investment funds, separately managed accounts, insurance company separate accounts and pension plans, (iii) special purpose entities organized to issue collateralized debt obligations and collateralized loan obligations (collectively, “CDOs”), banking institutions, (v) Undertaking for Collective Investment in Transferable Securities (“UCITS”), (vi) individual and institutional separately managed account clients primarily through investment advisory programs including wrap fee and dual contract arrangements (“Retail SMA Accounts”), and (vii) Exchange Traded Funds (“ETFs”). From time to time, TAL provides portfolio recommendations to sponsors of unit investment trusts (“UITs”), which are sold by the sponsor through broker-dealers and other firms.

TAL is a subsidiary of Nuveen Finance, LLC, which is an indirect subsidiary of Nuveen, LLC (“Nuveen”). Nuveen is a subsidiary, and represents the Asset Management division, of Teachers Insurance and Annuity Association of America (“TIAA”), a leading financial services provider. TIAA constitutes the ultimate principal owner of TAL. TAL was incorporated on October 19, 1993 and registered with the SEC as an investment adviser on July 21, 1994. For additional information on the ownership structure, please see Form ADV Part 1, Schedules A and B, and Item 10.”

TAL primarily provides its services on a discretionary basis but may also provide services on a non-discretionary and model portfolio basis.

TAL’s discretionary authority over an account is generally subject to directions, guidelines and limitations imposed by the client and, in the case of a Retail SMA Accounts, the program sponsor. TAL will endeavor to follow reasonable directions, investment guidelines and limitations. TAL reserves the right to decline to manage an account with investment restrictions that are unduly burdensome or materially incompatible with TAL’s investment approach.

As of December 31, 2016, TAL managed \$ 115,740,780,590 in discretionary assets under management.

Investment Advisory Services for Registered Investment Companies

Subject to the supervision of each client’s Board of Trustees, TAL provides management and certain administrative services necessary for the operation of its registered

investment company clients, including ETFs. TAL's responsibilities include, without limitation, investment advisory services, research services, recommending and placing of orders for the purchase and sale of securities for its registered investment company clients' portfolios (based on the investment objectives and needs of each client), supervising relationships with custodians, administrators, transfer and pricing agents, accountants, auditors, underwriters and other persons interacting with the clients, developing management and shareholder services, and furnishing reports, evaluations and analysis on a variety of subjects.

Investment Advisory Services for Institutional Asset Management

TAL provides asset management and related services to the institutional market. TAL manages unregistered investment funds, non-U.S. funds including UCITS, institutional separately managed accounts, insurance company separate accounts, UITs and pension accounts utilizing equity, fixed-income, and other strategies. The research and investment staff responsible for the equity and fixed-income asset classes and strategies, as well as policies and procedures governing these investments and the unregistered products, are similar to that of TAL's registered investment company clients. TAL may outsource some of these services to unaffiliated third parties for a negotiated fee. TAL may, under certain circumstances, tailor advisory services to the needs of individual clients. Clients serviced by TAL may also impose restrictions on investing in certain securities or types of securities.

CDO and CLO Advisory Services

TAL provides investment advisory, sub-advisory and supervisory services pursuant to management agreements to a number of special purpose entities organized to issue collateralized debt obligations and collateralized loan obligations (collectively, "CDOs"). CDOs typically issue securities collateralized by a portfolio of securities, loans and/or other assets. As a provider of advisory services, TAL performs a number of functions including advising the CDOs on the acquisition and disposition of collateral, subject to the investment criteria and trading restrictions applicable to the CDO and monitoring the performance of the CDOs portfolio. The scope of these advisory functions is delineated in each CDO's advisory agreement. The investors in CDOs are typically institutional investors such as insurance companies, pension funds and commercial banks with whom TAL or its affiliates may have other business relations. For example, TIAA, the parent of TAL may have co-invested monies with these investors and/or these investors may have invested monies as seed capital in funds for which TAL acts as investment adviser. These investors, as a result, may be deemed to have a controlling interest in the applicable CDOs or funds while such co-investment and/or seed capital is invested. CDOs clients may impose restrictions on investing in certain types of securities, subject

to limitations and conditions prescribed by the applicable indenture.

Banking Advisory Services

TAL provides limited investment advice as well as portfolio monitoring, trading and other investment-related services for proprietary assets owned by the TIAA-CREF Trust Company, FSB (the “Bank”) under an investment services agreement with the Bank. The advice and services that TAL provides to the Bank covers three broad categories of investments: (1) certain types of publicly-traded bonds; (2) certain types of interest rate derivatives, including OTC interest rate swaps and options; and (3) certain types of broadly syndicated commercial and industrial bank loans.

Separately Managed Account Program Clients (“Retail SMA Accounts”)

TAL provides investment advisory services to separately managed account clients (“Retail SMA Accounts”) primarily through investment advisory programs including wrap fee program and dual contract arrangements. In traditional wrap fee programs, TAL provides its advisory services pursuant to an advisory agreement with the wrap fee program sponsor. Wrap fee programs typically include comprehensive custody, financial advisory and certain trading (provided by the program sponsor) and investment advisory services (provided by the manager) for a bundled fee (“wrap fee”) payable to the sponsor. In a dual contract program, TAL provides its advisory services pursuant to an advisory agreement directly with the client. A client may separately arrange with one or more third parties for custody, financial advisory and certain trading services to be provided on a partially-bundled or unbundled basis. In a partially-bundled program, certain of such services (typically custody, financial advisory, and certain trading) are provided for a bundled fee arrangement. In an unbundled arrangement, such services are contracted, provided and paid for separately.

For Retail SMA Accounts, TAL is appointed to act as an investment adviser through a process generally administered or assisted by the program sponsor. Clients participating in a program, generally with assistance from the sponsor, may select TAL to provide investment advisory services for their account (or a portion thereof) for a particular strategy. TAL provides investment advisory services based upon the particular needs of the program client as reflected in information provided to TAL by the sponsor, and will generally make its representatives available for communication as reasonably requested by clients and/or sponsors. For certain Retail SMA Accounts, administrative support is provided by Nuveen Global Operations (“NGO”), a division of Nuveen Investments Holdings, Inc., a TAL affiliate. See Item 10.

Clients are encouraged to consult their own financial advisors and legal and tax

professionals on an initial and continuous basis in connection with selecting and engaging the services of an investment manager for a particular strategy and participating in a wrap or other managed account program. In the course of providing services to clients who have financial advisors, TAL generally relies on information or directions communicated by the financial advisor acting with apparent authority on behalf of its client.

TAL has a process for executing specific transactions in a client's account for tax reasons. Under this process, TAL will generally follow the directions of a client or its financial advisor regarding harvesting tax losses or gains, subject to certain scope, amount and timing limitations. Generally, the directions entail a repurchase of the sold security after the "wash sale" (thirty (30) day period (e.g., in the case of equities)), or a purchase of another appropriate security (e.g., in the case of municipal bonds). TAL generally relies in good faith on directions communicated by a financial advisor acting with apparent authority on behalf of its client. In providing such directions, the client and its financial advisor are responsible for understanding the merits and consequences of their directions in light of the client's particular tax situation. Daily market fluctuations may affect the dollar amount of gain or loss with respect to certain investment decisions. The monetary benefit derived from tax loss selling, for example, may not exceed the risk of not being fully invested during that time. Executing tax sales (and repurchases) may adversely affect performance. TAL is not a tax advisor, and therefore clients should consult with their tax specialist to review their particular tax situation. TAL may invest in exchange traded funds or other pooled vehicles, including during the wash sale period. Exchange traded funds and other funds have certain imbedded costs, including management fees, of which the client account will bear a proportionate share while it is invested in the exchange traded fund or other fund.

TAL may provide or make available at no charge various reports or materials to certain managed account program sponsors and other financial intermediaries who typically use TAL services and products. These reports may analyze a prospective client's current holdings or show the effect of performance of a TAL composite over a particular time period in a manner directed by the sponsor or intermediary. Such reports are not intended to constitute investment advice, research or recommendations.

For certain strategies, TAL provides certain non-discretionary investment services to clients who may include banks, broker-dealers and other financial services firms (including UIT sponsors), and other investors. Such services may include asset allocation advice, equity and fixed income research and model portfolio recommendations for a variety of investment styles. Model portfolios may relate to the same or different strategies that are also offered or utilized through discretionary accounts.

The recommendations implicit in the model portfolios provided to a program sponsor or

overlay manager may reflect recommendations being made by TAL contemporaneously to, or investment advisory decisions made contemporaneously for, similarly situated discretionary clients of TAL. As a result, TAL may have already commenced trading for its discretionary client accounts before the sponsor or overlay manager has received or had the opportunity to evaluate or act on TAL's recommendations. In this circumstance, trades ultimately placed by the sponsor or overlay manager for its clients may be subject to price movements, particularly with large orders or where the securities are thinly traded, that may result in model-based program clients receiving prices that are less favorable than the prices obtained by TAL for its discretionary client accounts. On the other hand, the sponsor or overlay manager may initiate trading based on TAL's recommendations before or at the same time TAL is also trading for its discretionary client accounts. Particularly with large orders or where the securities are thinly traded, this could result in TAL's discretionary clients receiving prices that are less favorable than prices that might otherwise have been obtained absent the sponsor or overlay manager's trading activity. Because TAL does not control the sponsor or overlay manager's execution of transactions for the sponsor or overlay manager's client accounts, TAL cannot control the market impact of such transactions to the same extent that it would for its discretionary client accounts.

Where TAL participates in model-based managed accounts programs, the model-based program sponsor or overlay manager is generally responsible for investment decisions and performing many other services and functions typically handled by TAL in a traditional discretionary managed account program. Depending on the particular facts and circumstances, TAL may or may not have an advisory relationship with model-based program clients. To the extent that this Form ADV Part 2A is delivered to program clients with whom TAL has no advisory relationship or under circumstances where it is not legally required to be delivered, it is provided for informational purposes only. Furthermore, because a model-based program sponsor or overlay manager generally exercises investment discretion and, in many cases, brokerage discretion, performance and other information relating to TAL's services for which it exercises investment and/or brokerage discretion is generally provided for informational purposes only, and may not be representative of model-based program client results or experience. TAL is not responsible for overseeing the provision of services by a model-based program sponsor and cannot assure the quality of its services.

Item 5 Fees and Compensation

The specific manner in which fees are charged by TAL is established in a client's written agreement with TAL. In general, fees paid to TAL for its services are also described below.

Registered Investment Companies (excluding ETFs)

TAL asset management fees for its registered investment company clients are as follows:

- for global funds approximately 65 basis points
- for international funds between 4 and 85 basis points
- for fixed-income funds between 7 and 35 basis points
- for U.S. equity funds between 4 and 46 basis points
- for real estate funds approximately 49 basis points
- for funds of funds between 0 and 10 basis points
- for money market funds approximately 10 basis points
- for life funds between 10 and 60 basis points

Some of these fees include expenses for services other than management of the funds.

Other fees such as 12b-1 fees are normally paid by the registered investment companies. Service fees for the funds are paid to the funds' distributor, Teachers Personal Investors Services, by TAL. Additionally, redemptions involving the shares of certain funds held less than 60 calendar days may be subject to the redemption fees addressed in the Fees and Expenses sections of the Funds' prospectuses.

The Investment Management Agreement between TAL and its registered investment company clients is subject to approval by the Board of Trustees of each investment company. TAL's fees under such Investment Management Agreements are set forth in the registration statement and other documents of such investment companies on file with the SEC.

Additionally, the Investment Management Agreements between TAL and its registered investment company clients may be terminated at any time as to any fund or to all funds, without the payment of any penalty, by the Board of Trustees of the investment company,

or by a vote of a majority of the outstanding votes attributable to the shares of the applicable fund, or by TAL, on 60 days' written notice to the other party. The Agreements automatically terminate in the event of their assignment. In the event of termination of the Agreements, all compensation due will be calculated on a pro-rated basis through the date of termination and paid within fifteen business days of the date of termination.

In general, TAL's fees for its registered investment companies are exclusive of transactions costs, such as brokerage commissions related to buying and selling securities. Clients may incur other charges imposed by custodians, brokers, distributors and other third parties such as deferred sales charges, odd-lot differentials, transfer taxes, wire transfer and electronic fund fees, and other fees and taxes on securities transactions. Those charges, fees and commissions are in addition to TAL's fee and TAL shall not receive any portion of the commissions, fees, and costs (other than in situations where TAL invests clients assets in a fund for which it serves as investment adviser).

Regarding investments in investment companies, when a fund invest in other investment companies such as mutual funds and exchange traded funds, the Fund bears a proportionate share of expenses charged by the investment company in which it invests.

The internal management fees are disclosed in a fund's prospectus and Item 12 further describes the factors that TAL considers in selecting or recommending broker-dealers for client transactions and determining the reasonableness of their compensation (*e.g.*, commissions).

Advisory Fees for Certain Funds

Fees for advisory services provided to certain funds (*e.g.*, UCITS, UITs, etc.) are separately negotiated between TAL and the third-party or affiliated investment adviser. Fees are generally based on a percentage of assets under management. These fees are disclosed in the relevant prospectus or offering documents.

ETFs

Asset management fees for ETF clients are between 20 and 40 basis points.

Institutional Asset Management Fees

TAL acts as an investment adviser to its institutional business advisory clients unregistered investment funds and separately managed accounts (collectively, "Institutional Clients") and receives fees for such services at a negotiated rate based on

each investment vehicle's particular investments and circumstances. Fees for such services are set forth in the Confidential Private Placement Memorandum, prospectus or other relevant offering document or applicable governing, operating or investment management agreement. Institutional Clients each have their own investment parameters as described in their offering materials and will typically have minimum investment levels and may offer breakpoints on fees for larger investments. In addition, Institutional Clients incur other charges imposed by custodians, administrators, brokers, distributors and other third parties. These charges, fees and commissions are in addition to TAL's management fee.

TIAA-CREF Real Property Fund LL

60 basis points of average NAV

The management fee is payable quarterly in arrears. The Fund shall also reimburse the Adviser for certain administrative expenses associated with operation of the fund up to a cap of 0.10% of the average NAV of the fund. The fund is currently expected to be made available solely to registered management investment companies or series thereof that are advised by TAL. The fund has entered into a sub-advisory agreement with TIAA-CREF Alternatives Advisors, LLC (TCAA). TAL will pay the sub-advisory fee to TCAA based on the agreement.

Separately Managed Accounts and Fees

TAL charges its clients management fees for all separately managed accounts. Most separate accounts use fee schedules which include breakpoints based on assets under management within the account and include annual minimum fees; withdrawals or market movement may adversely affect the effective fee rate. Other fee and breakpoint structures may be used from time to time. The custodian for each account will deduct the fees that are due to TAL on a quarterly basis (or more frequently, as determined by the investment management agreement) and are calculated as a percentage of average daily net assets.

The base schedules charged by TAL are listed below:

Separate Account Guaranteed Investment Contracts (SAGIC):

| Assets Under Management | Annual Fee Schedule |
|--------------------------------|----------------------------|
| Minimum account size | \$300 million |
| Minimum annual fee | \$690,000 |

| Assets Under Management | Annual Fee Schedule |
|--------------------------------|----------------------------|
| <u>Breakpoint Schedule</u> | |
| First \$300 million | 23 basis points |
| Next \$100 million | 15 basis points |
| Over \$400 million | 10 basis points |

Since the fee schedule includes breakpoints based on assets under management, withdrawals (as well as market movements) may adversely affect the effective fee rate. The custodian deducts the fees that are due to TAL on a quarterly basis or more frequently.

Institutional Separately Managed Account Fees

TAL bills its clients for the management fees for all existing institutional separately managed accounts. The basic fee schedules charged by TAL for institutional separately managed accounts are as follows (based on a percentage of the average daily net assets of each account):

| EQUITY SEPARATE ACCOUNT MANDATES | |
|---|-----------------|
| Emerging Markets Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$420,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 84 basis points |
| Next \$50 million | 82 basis points |
| Over \$100 million | 80 basis points |
| | |
| Global Equity Income | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$370,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 74 basis points |
| Next \$50 million | 72 basis points |
| Over \$100 million | 70 basis points |
| | |

| | |
|--|-----------------|
| Global Natural Resources | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$320,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 64 basis points |
| Next \$50 million | 62 basis points |
| Over \$100 million | 60 basis points |
| | |
| Growth and Income | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$220,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 44 basis points |
| Next \$50 million | 42 basis points |
| Over \$100 million | 40 basis points |
| | |
| International Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$245,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 49 basis points |
| Next \$50 million | 47 basis points |
| Over \$100 million | 45 basis points |
| | |
| International Equity Enhanced Index | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$195,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 39 basis points |
| Next \$50 million | 37 basis points |
| Over \$100million | 35 basis points |
| | |

| | |
|--|-----------------|
| International Opportunity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$295,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 59 basis points |
| Next \$50 million | 57 basis points |
| Over \$100 million | 55 basis points |
| | |
| International Small-Cap Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$320,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 64 basis points |
| Next \$50 million | 62 basis points |
| Over \$100 million | 60 basis points |
| | |
| Large-Cap Core Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$220,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 44 basis points |
| Next \$50 million | 42 basis points |
| Over \$100 million | 40 basis points |
| | |
| Large-Cap Enhanced Index Growth | |
| Minimum account size | \$ 50 million |
| Minimum annual fee | \$170,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 34 basis points |
| Next \$50 million | 32 basis points |
| Over \$100 million | 30 basis points |
| | |

| | |
|---------------------------------------|-----------------|
| Large-Cap Enhanced Index Value | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$170,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 34 basis points |
| Next \$50 million | 32 basis points |
| Over \$100 million | 30 basis points |
| | |
| Large-Cap Growth | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$220,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 44 basis points |
| Next \$50 million | 42 basis points |
| Over \$100 million | 40 basis points |
| | |
| Large-Cap Value | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$220,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 44 basis points |
| Next \$50 million | 42 basis points |
| Over \$100 million | 40 basis points |
| | |
| Mid-Cap Growth | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$235,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 47 basis points |
| Next \$50 million | 45 basis points |
| Over \$100 million | 43 basis points |
| | |

| | |
|-------------------------------|-----------------|
| Mid-Cap Value | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$235,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 47 basis points |
| Next \$50 million | 45 basis points |
| Over \$100 million | 43 basis points |
| | |
| Real Estate Securities | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$245,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 49 basis points |
| Next \$50 million | 47 basis points |
| Over \$100 million | 45 basis points |
| | |
| Small-Cap Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$225,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 45 basis points |
| Next \$50 million | 43 basis points |
| Over \$100 million | 41 basis points |
| | |
| Small Mid-Cap Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$225,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 45 basis points |
| Next \$50 million | 43 basis points |
| Over \$100 million | 41 basis points |
| | |

| | |
|---|------------------|
| Social Choice International Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$145,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 29 basis points |
| Next \$50 million | 27 basis points |
| Over \$100 million | 25 basis points |
| | |
| Social Choice Low Carbon Equity | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$120,000 |
| <u>Breakpoint Schedule</u> | |
| First \$100 million | 24basis points |
| Next \$50 million | 22 basis points |
| Over \$100 million | 20 basis points |
| | |
| Socially Responsible Equity | |
| Minimum account size | \$100 million |
| Minimum annual fee | \$150,000 |
| <u>Breakpoint Schedule</u> | |
| First \$100 million | 15 basis points |
| Next \$150 million | 14 basis points |
| Over \$250 million | 13 basis points |
| | |
| FIXED INCOME SEPARATE ACCOUNT MANDATES | |
| CAT Bond | |
| Minimum account size | \$100 million |
| Minimum annual fee | \$1,000,000 |
| <u>Breakpoint Schedule</u> | |
| First \$100 million | 100 basis points |
| Next \$50 million | 95 basis points |
| Over \$150 million | 90 basis points |

| | |
|---|-----------------|
| | |
| Core Fixed Income | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$245,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 29 basis points |
| Next \$50 million | 27 basis points |
| Over \$100 million | 25 basis points |
| | |
| Core Plus Fixed Income | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$145,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 29 basis points |
| Next \$50 million | 27 basis points |
| Over \$100 million | 25 basis points |
| | |
| Emerging Markets Debt | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$270,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 54 basis points |
| Next \$50 million | 52 basis points |
| Over \$100 million | 50 basis points |
| | |
| Emerging Markets Debt Local Currency | |
| Minimum account size | \$100 million |
| Minimum annual fee | \$650,000 |
| <u>Breakpoint schedule</u> | |
| First \$100 million | 65 basis points |
| Next \$50 million | 60 basis points |
| Over \$150 million | 55 basis points |

| | |
|------------------------------------|-----------------|
| | |
| High Yield BB-B Constrained | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$170,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 34 basis points |
| Next \$50 million | 32 basis points |
| Over \$100 million | 30 basis points |
| | |
| Inflation-Linked Bond | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$120,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 24 basis points |
| Next \$50 million | 22 basis points |
| Over \$100 million | 20 basis points |
| | |
| International Bond | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$270,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 54 basis points |
| Next \$50 million | 52 basis points |
| Over \$100 million | 50 basis points |
| | |
| Leveraged Loans | |
| Minimum account size | \$100 million |
| Minimum annual fee | \$500,000 |
| <u>Breakpoint Schedule</u> | |
| First \$100 million | 50 basis points |
| Next \$50 million | 48 basis points |
| Over \$150 million | 46 basis points |
| | |

| | |
|---|-----------------|
| Non-Agency Mortgaged Back Securities | |
| Minimum account size | \$100 million |
| Minimum annual fee | \$300,000 |
| <u>Breakpoint Schedule</u> | |
| First \$100 million | 30 basis points |
| Next \$50 million | 28 basis points |
| Over \$150 million | 26 basis points |
| | |
| Short-Term Bond | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$120,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 24 basis points |
| Next \$50 million | 22 basis points |
| Over \$100 million | 20 basis points |
| | |
| Socially Responsible Fixed-Income | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$170,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 34 basis points |
| Next \$50 million | 32 basis points |
| Over \$100 million | 30 basis points |
| | |
| Tax-Exempt Bond | |
| Minimum account size | \$50 million |
| Minimum annual fee | \$145,000 |
| <u>Breakpoint Schedule</u> | |
| First \$50 million | 29 basis points |
| Next \$50 million | 27 basis points |
| Over \$100 million | 25 basis points |
| | |

CDO Fees

TAL's fees in connection with CDOs investment advisory services are generally based on the principal amount of the collateral securities and other assets under management and are separately negotiated in each transaction. Consequently, fees in such transactions will vary. Such fees are generally not directly charged to investors but are payable from cash flow derived from the CDOs assets during the applicable period. Such fees are payable in accordance with the "Priority of Payments" for each CDO that establishes the priority with which cash flow generated by the CDOs portfolio is applied to payments to CDOs investors and service providers to the CDOs.

The fee structure for CDOs frequently consists of a base management fee that is payable prior to any payments to CDOs investors, and a management fee that is subordinate to payments to CDOs senior note holders. An additional management fee may be negotiated that is payable once the subordinated and/or equity investors have received a specified internal rate of return.

The fee structure for CDOs collateral management fees typically consists of: (i) a base management fee of up to 20 basis points of the principal balance of the CDO portfolio; and (ii) a subordinated management fee of up to 40 basis points of the principal balance of the CDOs portfolio. There may be a 20% incentive fee ONLY if the IRR (internal rate of return) of the CDOs is 12% or higher; and only on the portion above 12%. TAL charges a fee of up to 20 basis points for monitoring services on a limited basis to specific clients.

Retail SMA Accounts

For Retail SMA Accounts offered through wrap fee programs, TAL's fee is determined by agreement between the sponsor and TAL, and may be up to 0.07%. Total annual fees charged by wrap sponsors, which include TAL's fee, are generally up to 1.25% (in the case of fixed income) and 3.00% (in the case of equity) annually of the client's assets in the wrap program.

For dual contract accounts, TAL and sponsors each charge their fees separately. Fees charged to dual contract accounts are individually contracted between TAL and the client.

For Retail SMA Accounts, TAL's fees are generally payable quarterly or at such other times as agreed upon by the parties involved based upon the market value of assets in the account on the date of valuation. Payment arrangements, including the timing (in advance or in arrears) and billing procedures (which may include sending an invoice and/or deduction of fees), will be agreed upon by TAL and the client.

Wrap fee program sponsors typically collect the total wrap fee and remit TAL's fee to

TAL. Certain dual contract program sponsors collect and remit TAL's fee to TAL separately.

Generally, if an account is opened or closed during a billing period, the advisory fees are prorated for that portion of the billing period during which the account was open.

See also Item 15.

Advisory Fees for Non-Discretionary Accounts and Model Portfolio Advice

These services are furnished for a negotiated fee paid by the purchaser.

Additional Fee Disclosure

Regarding TAL's fees in general, from time to time, TAL may enter into negotiated fee arrangements that, in light of a particular investor's special circumstances, may result in fee schedules that differ from the usual basic fee schedules. Such circumstances may include, without limitations, the type of relationship such client has with TAL; the complexity and extent of services provided; whether a new account is expected to grow rapidly; the number of different accounts and total assets under management or custody for that client (and its affiliates); the investment product mix selected by the client, and other circumstances or factors that TAL deems relevant. Fees paid by certain clients who are qualified purchasers, including affiliates of the Adviser, are negotiable.

From time to time, a client may instruct TAL to suspend investment management services for their accounts for a period of time. Such accounts will generally be unmanaged during such time. TAL generally charges standard fees for all or a portion of such time to reflect the administrative costs associated with implementing such instructions. To the extent a client's investment management agreement for a dual contract Retail SMA Account provides that TAL's fees are to be paid in advance, the unearned portion of such fees will be refunded to the client upon termination of the service. For wrap fee program agreements that provide that TAL's fees are to be paid in advance, TAL will refund any prepaid, but unearned fees to the program sponsor. The sponsor is then responsible for refunding fees, as applicable, to the client upon termination of the service. The refunded amount will be determined on a pro rata basis if the service is terminated within the payment period.

TAL supervised persons and related sales personnel typically market TAL's investment capabilities to various prospects and intermediaries. TAL's investment capabilities are available directly through provision of investment advisory services (through institutional separately managed accounts and Retail SMA Accounts), or indirectly by investment in TIAA-CREF Funds advised or sub-advised by TAL. TAL supervised persons and related sales personnel may be internally compensated for successful marketing or selling

activities with respect to TAL's investment advisory services.

Investors in TIAA-CREF Funds advised or sub-advised by TAL will not be advisory clients of TAL, and TAL will not provide investment advice or recommendations with respect to the merits and suitability of the particular investment and investment decision for the particular investor. Investors in TIAA-CREF Funds are encouraged to consult their own financial, tax and legal advisors regarding such decisions. TIAA-CREF Fund shares are available through many unaffiliated broker-dealers and other financial services firms.

Item 6 Performance-Based Fees and Side-By-Side Management

TAL is not paid performance-based fees. TAL charges its advisory clients fees based on either a percentage of assets under management, invested capital or fixed fees.

Item 7 Types of Clients

TAL offers or provides its services to a wide range of client types including: (i) registered investment companies, (ii) institutional asset management businesses including unregistered investment funds, investment advisers, insurance company separate accounts, trust accounts and pension plans, (iii) special purpose entities organized to issue collateralized debt obligations and collateralized loan obligations (collectively, “CDOs”), (iv) special purpose entities organized to issue collateralized loan obligations (“CLOs”), (v) banking institutions, (vi) Undertaking for Collective Investment in Transferable Securities (“UCITS”), (vii) individual and institutional separately managed account clients primarily through investment advisory programs including wrap fee and dual contract arrangements (“Retail SMA Accounts”), and (viii) Exchange Traded Funds (“ETFs”). From time to time, TAL provides portfolio recommendations to sponsors of unit investment trusts (“UITs”), which are sold by the sponsor through broker-dealers and other firms.

Please refer to Item 5 for the minimum account sizes of TAL’s institutional separately managed accounts. The minimum account size for its registered investment companies, unregistered investment funds, insurance company separate accounts and CDOs clients are as follows:

TIAA-CREF Funds (Retirement, Retail, Institutional and Premier Share Classes)

- Minimum initial investment for Retail Class shares is \$2000 for Traditional IRA, Roth IRA and Coverdell accounts and \$2500 for all other account types. Subsequent investments for all account types must be at least \$100
- No minimum initial or subsequent investment requirement for Retirement Class shares. Retirement Class shares are offered through certain financial intermediaries and employer-sponsored employee benefit plans
- No minimum initial or subsequent investment requirement for Premier Class shares. Premier Class shares are offered through certain financial intermediaries and employer-sponsored employee benefit plans
- Minimum initial investment starts at \$2 million and the minimum subsequent investment is \$1000 for Institutional Class shares, unless an investor purchases shares by or through financial intermediaries that have entered into an appropriate agreement with the Fund or its affiliates

TIAA-CREF Life Funds

- Requirements for the purchase and sale of these underlying funds for variable insurance products are provided by the insurance companies issuing the product

ETFs

- There are no minimum requirements for this client

UCITS

- Minimum initial investment for A and C share class is \$5,000
- Minimum initial investment for I share class is \$1,000,000
- Minimum initial investment for P share class is \$5,000,000
- Minimum subsequent investment for all share classes is \$5,000
- Minimum and subsequent investment may be waived or reduced at the discretion of the UCITS's directors

UTs

- Minimum investment for brokerage accounts is \$1000 (100 units)
- Minimum investment for IRA accounts is \$250 (25 units)
- Distributors may at their discretion accept subscriptions for lesser amounts

CDOs

- In general, investors must be Qualified Purchasers, as such term is defined in the Investment Company Act of 1940

TIAA Separate Account VA-1

- This product is not currently accepting new investors.

TC Life Stable Value Separate Account

- Minimum funding for this separate account is based upon the insurance company issuing the Stable Value Account product negotiations with its Stable Value Account client

Retail SMA Accounts

- For Retail SMA Accounts, TAL typically requires a minimum account of \$100,000 for equity and asset allocation strategies and \$250,000 for fixed income strategies, although the specific minimum account size varies by program. TAL may waive these minimums based on client type, asset class, pre-existing relationship with client and other factors. For certain accounts, a negotiated minimum annual fee applies.

Item 8 Methods of Analysis, Investment Strategies and Risk of Loss

TAL may use a variety of different analytic methods and investment strategies, depending on the nature of the fund or account it is managing. This section first describes the analytical methods TAL uses and, then separately, the investments strategies (which may refer to analytic methods) and their associated risks.

Methods of Analysis

Active Management

TAL concentrates on individual companies rather than sectors or industries. TAL may look for stocks that it believes are attractively priced based on an analysis of the company's prospects for growth in earnings, cash flow, revenues and competitive advantage. TAL also may look for companies whose assets appear undervalued in the market. In general, TAL focuses on companies with shareholder-oriented managements dedicated to creating value.

Enhanced Indexing

TAL may use several different investment techniques to build a portfolio of securities that is structured to resemble and share the risk characteristics of various segments of the benchmark index, while also seeking to outperform that benchmark index. Enhanced index strategies often employ proprietary, quantitative modeling techniques for stock selection, country allocation and portfolio construction. Quantitative analysis involves the use of mathematical models and computer programs that attempt to outperform the index by over and under weighting certain securities while keeping the funds' or accounts' overall financial and risk characteristics similar to those of its benchmark index. In general, the enhanced indexing methodology is designed so that a fund's or account's performance diverges from and may outperform its benchmark more than an indexing approach, but remains closer to the benchmark than other funds or accounts using a traditional active management style. Enhanced index strategies will typically hold more securities in the portfolio than traditional active strategies.

Pure Indexing

TAL may use investment techniques designed to track various segments of the component indices of a fund's or account's benchmark index. Funds or accounts

using this technique may not invest in all securities in the indices comprising the funds' or accounts' composite benchmark, but rather may use a sampling approach to create a portfolio that closely matches the overall characteristics of the relevant segments of the underlying indices.

Investment Strategies

Asset Allocation

- **Managed Allocation** - Seeks favorable returns that reflect the broad investment performance of the financial markets through capital appreciation and investment income by investing primarily in other mutual funds and the fund of funds invests approximately 60% of its assets in underlying equity funds (including up to 5% in real estate) and approximately 40% of its assets in underlying fixed-income funds

Equity

- **Enhanced Large-Cap Growth Index** - Seeks a favorable long-term total return mainly through capital appreciation and invests primarily in equity securities of large domestic companies and follows an enhanced index management strategy
- **Enhanced Large- Cap Value Index** - Seeks favorable long term total return, mainly through capital appreciation and invests primarily in equity securities of large domestic companies and follows an enhanced index management strategy
- **Equity Index** - Seeks a favorable long term total return mainly through capital appreciation and invests primarily in a portfolio of equity securities selected to track the overall U.S. equity markets based on a market index
- **Growth and Income** - Seeks a favorable long-term total return through both capital appreciation and investment income and invests primarily in income producing equity securities
- **Large-Cap Growth** - Seeks a favorable long-term return, mainly through capital appreciation, and invests primarily in equity securities
- **Large- Cap Growth Index** - Seeks a favorable long- term total return, mainly through capital appreciation and invests primarily in a portfolio of equity securities of large domestic growth companies based on a market index

- **Large-Cap Value** - Seeks a favorable long-term return, mainly through capital appreciation, and invests primarily in equity securities of large domestic companies
- **Large-Cap Value Index** - Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in a portfolio of equity securities of large domestic value companies based on a market index
- **Mid- Cap Growth** - Seeks a favorable long-term return, mainly through capital appreciation and invests primarily in equity securities of medium-sized domestic companies
- **Mid- Cap Value** - Seeks a favorable long-term return, mainly through capital appreciation and invests primarily in equity securities of medium-sized domestic companies
- **S&P 500 Index** - Seeks a favorable long-term return, mainly through capital appreciation and invests primarily in a portfolio of equity securities of large domestic companies selected to track U.S. equity markets based on a market index
- **Small- Cap Blend Index** - Seeks a favorable long-term return, mainly through capital appreciation and invests primarily in a portfolio of equity securities in smaller domestic companies based on a market index
- **Small-Cap Equity** - Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in equity securities of smaller domestic companies
- **Small/Mid-Cap Equity** – Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in equity securities of small to mid-sized companies across a wide range of sectors, growth rate and valuation.
- **Social Choice Equity** - Seeks a favorable long-term total return that reflects the investment performance of the overall U.S. stock market while giving special consideration to certain environmental, social and governance criteria (ESG) and favor companies with leadership in ESG performance relative to their peers
- **Social Choice Low Carbon Equity** - Seeks a favorable long-term return that reflects the investment performance of the overall U.S. stock market while giving special consideration to environmental, social and governance (“ESG”) criteria

and favors companies with leadership in ESG performance relative to their peers and that demonstrate leadership in managing and mitigating current carbon emissions and potential future emissions resulting from fossil fuel reserves

Fixed Income

- **Bond** - Seeks as favorable a long term total return through income primarily from investment grade fixed income securities and invests primarily in a broad range of investment grade bonds and fixed income securities including, but not limited to, U.S. government securities, corporate bonds and mortgage-backed or other asset-backed securities
- **Bond Index** - Seeks a favorable long-term return, mainly from current income, by primarily investing in a portfolio of fixed income securities that is designed to produce a return that corresponds with the total return of the U.S. investment grade bond market based on a broad bond index, uses a sampling technique to create a portfolio that closely matches the overall investment characteristics of its benchmark(including duration, sector, diversification and credit quality) without investing in all the securities in that index and invests in a wide spectrum of public, investment grade, taxable debt securities, mortgage-backed, commercial-backed and asset-backed securities and may invest in foreign securities only to the extent they are held in the index
- **Bond Plus** - Seeks a favorable long term total return, primarily through high current income consistent with preserving capital and invests in a broad range of investment grade bonds and other high-quality fixed income securities, and bonds and fixed income securities with special features in an effort to improve the total return
- **High Yield** - Seeks high current income, when consistent with its primary objection, capital appreciation and invests primarily in lower- rated, high-yielding fixed income securities, such as domestic and foreign corporate bonds, debentures, loan participations and notes, as well as convertible securities and preferred stocks
- **Inflation Linked Bond** - Seeks a long- term rate of return that outpaces inflation, primarily through investment in inflation- linked bonds and invests primarily in fixed income securities whose principal value increases or decreases based on changes in the Consumer Price Index for All Urban Consumers over the life of the securities
- **Short-Term Bond** - Seeks high current income consistent with

preservation of capital and invests at least 80% of its assets in U.S. Treasury and agency securities and investment-grade corporate bonds with an average maturity of less than three years and may also invest up to 20% of its assets in fixed-income securities of foreign issuers

- **Short-Term Bond Index** - Seeks favorable long-term total return, mainly from current income, uses a sampling technique to create a portfolio that closely matches the overall investment characteristics of its benchmark (including duration, sector diversification and credit quality) without investing in all the securities in that index and invests primarily in a portfolio of fixed income securities that is designed to produce a return that corresponds with the total return of the U.S. investment grade bond market based on a short-term bond index
- **Social Choice Bond** - Seeks a favorable long-term return through income and capital appreciation while giving special consideration to certain environmental, social and governance (“ESG”) criteria and invests primarily in a broad range of investment grade bonds including, but not limited to, U.S. Government securities, corporate bonds, taxable municipal securities, and mortgage-backed and other asset backed securities – may also invest in other fixed income instruments that reflect proactive social investments and fixed-income securities of foreign issuers, including emerging markets
- **Tax-Exempt Bond** - Seeks a high level of current income that is exempt from regular federal income tax, consistent with preservation of capital and invests primarily in tax exempt bonds and may invest up to 20% of its assets in private activity bonds (tax-exempt bonds whose proceeds are used to finance private, for-profit organizations) and up to 20% in securities rated below investment-grade which are usually called high-yield bonds

International

- **Emerging Markets Debt** - Seeks a favorable long term total return, through income and capital appreciation, and invests primarily in a portfolio of emerging markets fixed income investments including corporate, sovereign and quasi-sovereign fixed income securities with rating of B- or better, but may also invest in lower-rated bonds
- **Emerging Markets Equity** - Seeks a favorable long term total return, mainly through capital appreciation and invests primarily in a portfolio of emerging markets equity investments including equity securities of emerging markets issuers or in instruments with economic characteristics similar to

emerging markets equity securities

- **Emerging Markets Equity Index** - Seeks a favorable long term return, mainly through capital appreciation and invests primarily in a portfolio of emerging market equity investments based on a market index
- **Enhanced International Equity Index** - Seeks a favorable long-term total return mainly through capital appreciation and invests primarily in equity securities of foreign issuers and follows an enhanced index management strategy
- **International Bond** - Seeks a favorable long-term total return and invests primarily in fixed-income investments of foreign issuer including a broad range of high-quality investment-grade sovereign, quasi-sovereign fixed income investments and corporate, out-of-benchmark emerging markets and high-yield bonds
- **International Equity** - Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in equity securities of foreign issuers and maintains investments of equity securities of foreign issuers in at least 3 countries other than the U.S.
- **International Equity Index** - Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in a portfolio of foreign equity investments based on a market index
- **International Opportunities** - Seeks a favorable long-term total return mainly through capital appreciation and invests primarily in equity securities of foreign issuers in developed and emerging markets located around the world but outside of the U.S.
- **International Small-Cap Equity** – Seeks a favorable long-term total return, mainly through capital appreciation and invests in small-cap equity securities of foreign issuers across a wide range of sectors, growth rates and valuations
- **Social Choice International Equity** - Seeks a favorable long-term total return that reflects the investment performance of overall international equity markets while giving special consideration to certain environmental, social and governance (“ESG”) criteria and favors companies with leadership in ESG performance relative to their peers

Lifecycle

- **Lifecycle Retirement Income** - Seeks high total return over time primarily through income, with a secondary emphasis on capital appreciation and the fund of funds invests according to a relatively stable asset allocation strategy and invests in several underlying equity, fixed income and direct real estate funds
- **Lifecycle Index Retirement Income** - Seeks high total return over time primarily through income, with a secondary emphasis on capital appreciation and the fund of funds invests in several underlying equity and fixed-income funds offered by TIAA-CREF Funds and currently its target allocation consists of an equity/fixed-income mix of approximately 40%/60% and may deviate from this target allocation by up to 10% depending upon current market conditions and outlook

Life Funds

- **Growth & Income** - Seeks a favorable long-term total return, through both capital appreciation and investment income and invests primarily in income-producing equity securities
- **Growth Equity** - Seeks a favorable long-term return, mainly through capital appreciation and invests primarily in equity securities
- **International Equity** - Seeks a favorable long-term total return, through capital appreciation and invests primarily in equity securities of foreign issuers
- **Large-Cap Value** - Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in equity securities of large domestic companies
- **Real Estate Securities** - Seeks to obtain a favorable long-term total return through both capital appreciation and current income and invests primarily in equity securities of companies principally engaged in or related to the real estate industry
- **Small-Cap Equity** - Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in equity securities of smaller domestic companies
- **Social Choice Equity** - Seeks a favorable long term-total return that reflects the investment performance of the overall U.S. stock market while giving special consideration to certain social criteria and invests primarily in equity securities of companies whose activities are consistent with certain environmental, social and governance (“ESG”) criteria

- **Stock Index** - Seeks a favorable long-term total return, mainly through capital appreciation and invests primarily in a portfolio of equity securities selected to track the overall U.S. equity markets
- **Bond** - Seeks a favorable long-term total return through income and invests primarily in investment grade fixed-income securities
- **Balanced** - Seeks long-term total return, consisting of capital appreciation and current income and the fund of funds invests in shares of other TIAA-CREF Life Funds, in Institutional Class shares of funds of the TIAA-CREF Funds and potentially other affiliated or unaffiliated investment pools or investment products
- **Money Market** - Seeks high current income consistent with maintaining liquidity and preserving capital and invests at least 99.5% of its total assets in cash, U.S. Government securities and/or repurchase agreements that are collateralized fully by cash or U.S. Government securities

Lifestyle

- **Lifestyle Aggressive Growth** - Seeks long-term growth of capital and a fund of funds that makes investments in Institutional Class shares of other TIAA-CREF Funds and invests approximately 100% of its assets in underlying equity funds
- **Lifestyle Conservative** - Seeks long-term total return, consisting of current income and capital appreciation and a fund of funds that makes investments in Institutional Class shares of other TIAA-CREF Funds and invests approximately 40% of its assets in underlying equity funds and approximately 60% of its assets in underlying fixed-income funds
- **Lifestyle Growth** - Seeks long-term growth of capital with some current income and a fund of funds that makes investments in Institutional Class shares of other TIAA-CREF Funds and invests approximately 80% of its assets in underlying equity funds and approximately 20% of its assets in underlying fixed-income funds
- **Lifestyle Income** - Seeks current income with some capital appreciation and a fund of funds that makes investments in Institutional Class shares of other TIAA-CREF Funds and invests approximately 20% of its assets in underlying equity funds and approximately 80% of its assets in underlying fixed-income funds

- **Lifestyle Moderate** - Seeks long-term total return, consisting of current income and capital appreciation and a fund of funds that makes investments in Institutional Class shares of other TIAA-CREF Funds and invests approximately 60% of its assets in underlying equity funds and approximately 40% of its assets in underlying fixed-income funds

Money Market

- **Money Market** - Seeks high current income consistent with maintaining liquidity and preserving capital and invests at least 99.5% of its total assets in cash, U.S. Government securities and/or repurchase agreements that are collateralized fully by cash or U.S. Government securities and seeks to maintain a share value of \$1.00 per share – investments will be made in accordance with the applicable rules governing the quality, maturity and diversification of securities and other instruments held by money market funds

Real Estate

- **Real Estate Securities** - Seeks to obtain a favorable long-term total return through both capital appreciation and current income and invests primarily in equity securities of companies principally engaged in or related to the real estate industry

World

- **Global Natural Resources** - Seeks a favorable long term total return, mainly through capital appreciation, from investments related to the natural resources sector and invests primarily in securities of issuers that are primarily engaged in energy, metals, agriculture and other commodities, as well as products and services

TIAA Separate Account VA-1

Seeks favorable long term return from a diversified portfolio selected to track the overall market for common stocks publicly traded in the U.S. as represented by a broad stock market index

Stable Value Separate Account

Seeks preservation of capital and to maximize realized yield relative to the duration target range by investing in high quality short/intermediate fixed income investments with a focus on high quality spread sectors emphasizing safety

through diversification

UCITS

- **Emerging Markets Debt** - Seeks a favorable long term total return through income and capital appreciation and invests primarily in a portfolio of emerging markets fixed-income investments including corporate, sovereign and quasi-sovereign fixed-income securities with ratings of B- or better, but may also invest in lower-rated bonds
- **Global Equity ESG** – Seeks a favorable long-term return that reflects the investment performance of the overall global stock markets while giving special consideration to certain environmental, social and governance (ESG) criteria by investing in companies that demonstrate ESG leadership in their respective sectors, including impact on stakeholders such as employees, communities, customers, suppliers and the environment
- **U.S. Bond ESG** – Seeks a favorable long-term total return through income and capital appreciation while giving special consideration to certain environmental, social and governance (ESG) criteria by investing in a broad range of publicly traded Investment Grade bonds and fixed-income securities including U.S. Government securities, corporate bonds, taxable U.S. municipal securities and mortgage-backed or other asset-backed securities, subject to ESG criteria

Retail SMAs

- **All-Cap Growth ESG** – Seeks to outperform the broad benchmark over a full market cycle, while generating comparable total return characteristics relative to the Russell 3000 Growth Index while adhering to comprehensive ESG guidelines by investing in U.S. and non-U.S. equity securities with a market capitalization generally above \$1 billion at time of purchase
- **Global Dividend Equity ESG** – Seeks to outperform the broad benchmark over a full market cycle, while generating comparable total return characteristics relative to the MSCI World Index while adhering to comprehensive ESG guideline by investing in U.S. and non-U.S. equities that pay a dividend
- **Low Carbon Value Equity ESG** – Seeks to outperform the broad benchmark over a full market cycle, while generating comparable total return characteristics relative to the Russell 1000 Value Index while adhering to comprehensive ESG and additional Low Carbon guidelines by investing in U.S. and non-U.S. securities with a market capitalization generally above \$3 billion at time of

purchase

ETFs

- **Enhanced Yield U.S. Aggregate Bond** – Seeks to track the investment results, before fees and expenses, of the TIAA Enhanced Yield U.S. Aggregate Bond Index and generally invests in a sample of the securities in the Enhanced Index whose risk, return and other characteristics resemble the risk, return and other characteristics of the Enhanced Index as a whole
- **ESG Large-Cap Growth** – Seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Large-Cap Growth Index which is comprised of equity securities issued by large capitalization companies listed on U.S. exchanges that meet certain environmental, social and governance (ESG) criteria and select from securities that exhibit overall growth style characteristics based on five variable: long-term forward earnings per share (EPS) growth rate, short-term EPS growth rate, current internal growth rate, long-term historical EPS growth trend and long-term historical sales per share growth trend
- **ESG Large-Cap Value** – Seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Large-Cap Value Index which is comprised of equity securities issued by large capitalization companies listed on U.S. exchanges that meet certain ESG criteria and select from securities that generally consist of large- and mid-capitalization U.S. equity securities that exhibit overall style characteristics based on three variable: book value to price, 12-month forward earnings to prices and dividend yield
- **ESG Mid-Cap Growth** – seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Mid-Cap Growth Index which is comprised of equity securities issued by mid-capitalization companies listed on U.S. exchanges that meet certain environmental, social, and governance (ESG) criteria and selects from the securities which generally consists of mid-capitalization U.S. equity securities that exhibit overall growth style characteristics based on five variables: long-term forward earnings per share (EPS) growth rate, short-term forward EPS growth rate, current internal growth rate, long-term historical EPS growth trend, and long-term historical sales per share growth trend.
- **ESG Mid-Cap Value** – seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Mid-Cap Value Index which is comprised of equity securities issued by mid-capitalization companies listed on U.S. exchanges that meet certain environmental, social, and governance (ESG) criteria and selects from the securities included in the MSCI USA Mid-Cap Value Index which

generally consists of mid-capitalization U.S. equity securities that exhibit overall value style characteristics based on three variables: book value to price, 12-month forward earnings to price, and dividend yield.

- **Small-Cap** - seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Small-Cap Index which is comprised of equity securities issued by small-capitalization companies listed on U.S. exchanges that meet certain environmental, social, and governance (ESG) criteria. The Index selects from the securities included in the MSCI USA Small Cap Index which generally consists of equity securities that comprise the small-cap segment of the U.S. market.
- **Short-Term REIT** – Seeks to track the investment results, before fees and expenses, of the Short-Term REIT Index which is comprised of real estate investment trusts and generally invests in a sample of the securities in the Index whose risk, return and other characteristics resemble the risk, return and other characteristics of the Index as a whole

TIAA-CREF Real Property Fund LP

Seeks a favorable long term total return by primarily investing in a diversified portfolio of U.S. commercial core real estate assets well located in select targeted cities. Currently expected to be made available solely to registered management investment companies or series that are advised by TAL

Description of Material Risks Associated with Investment Strategies

- **Active Management Risk** - The risk that the strategy, investment selection or trading execution may cause a fund to underperform relative to the benchmark index or mutual funds with similar investment objectives.
- **Asset Allocation Risk** - The risk that a fund may not achieve its target allocations. In addition, there is the risk that the asset allocations may not achieve the desired risk-return characteristic or that the selection of underlying funds and the allocations among them will result in a fund underperforming other similar funds or cause an investor to lose money.
- **Benchmark Risk** - The risk that a fund's performance may not correspond to its benchmark index for any period of time and may underperform such index or the overall financial market. Additionally, to the extent that a fund's investments vary from the composition of its benchmark index, a fund's performance could potentially vary from the index's performance to a greater extent than if a fund merely attempted to replicate the index.

- **Call Risk** - The risk that, during periods of falling interest rates, an issuer may call (or repay) a fixed-income security prior to maturity, resulting in a decline in a fund's income.
- **Counterparty and Third Party Risk** – Transactions involving a counterparty to a derivative or other instrument, or to a third party responsible for servicing the instrument, are subject to credit risk of the counterparty or third party and to the counterparty's or third party's ability to perform in accordance with the terms of the transaction
- **Credit Risk** (a type of **Issuer Risk**) - The risk that the issuer of fixed-income investments may not be able or willing to meet interest or principal payments when the payments become due.
- **Currency Risk** – The risk that foreign (non-U.S.) currencies may decline in value relative to the U.S. dollar and adversely affect the value of a fund's investments in foreign currencies, securities denominated in foreign currencies or derivative instruments that provide exposure to foreign currencies
- **Currency Management Strategies Risk** – Currency Management Strategies, including the use of forward currency contracts and other derivatives, may substantially change a fund's exposure to currencies and currency exchange rates and could result in losses to a fund if currencies do not perform as anticipated. A fund's ability to use derivative instruments to manage currency exposure may also be altered or constrained by pending SEC regulations, if such regulations are adopted as proposed
- **Current Income Risks** - The risk that the income a fund receives may fall as a result of a decline in interest rates. In a low or negative interest rate environment, a fund may not be able to achieve a positive or zero yield or in the case of a money market fund maintain a stable net asset value of \$1.00 per share.
- **Cybersecurity Risk** - Cybersecurity breaches may allow an unauthorized party to gain access to assets, customer data, or proprietary information, or cause an account and/or its service providers to suffer data corruption or lose operational functionality.
- **Derivatives Risk** - The risks associated with investing in derivatives may be different and greater than the risks associated with directly investing in the underlying securities and other instruments. A fund may use futures and options, single name or index credit default swaps, or forwards, and a fund may also use more complex derivatives such as swaps that might present liquidity, credit and counterparty risk. When investing in derivatives, a fund may lose more than the principal amount invested.

- **Dollar Roll Transaction Risk**—The use of dollar rolls can increase the volatility of a fund's share price, and it may have an adverse impact on performance unless mortgage prepayments and interest rates are correctly predicted.
- **Downgrade Risk** - The risk that securities are subsequently downgraded should the adviser and/or rating agencies believe the issuer's business outlook or creditworthiness has deteriorated.
- **Emerging Markets Risk** - The risk of foreign investments often increases in countries with emerging markets. For example, these countries may have more unstable governments than developed countries, and their economies may be based on only a few industries. Because their securities markets may be very small, share prices of financial instruments in emerging markets countries may be volatile and difficult to determine. Financial instruments of issuers in these countries may be less liquid than those of issuers in more developed countries. In addition, foreign investors such as strategy fund are subject to a variety of special restrictions in many emerging markets countries.
- **Enhanced Index Risk** - The risk that a fund may underperform its benchmark index due to differences between investments made by a fund and its benchmark index.
- **ESG Criteria Risk** - The risk that because a fund's ESG criteria exclude securities of certain issuers for nonfinancial reasons, a fund may forgo some market opportunities available to funds that don't use these criteria.
- **Extension Risk** - The risk that, during periods of rising interest rates, borrowers may pay off their mortgage loans later than expected, preventing a fund from reinvesting principal proceeds at higher interest rates and resulting in less income than potentially available.
- **Fixed-Income Foreign Investment Risk** - Investment in fixed-income securities or financial instruments of foreign issuers involves increased risks due to adverse issuer, political, regulatory, currency, market or economic developments. These developments may impact the ability of a foreign debt issuer to make timely and ultimate payments on its debt obligations to a fund or impair a fund's ability to enforce its rights against the foreign debt issuer. These risks are heightened in emerging or developing markets. Foreign investments may also be less liquid and more difficult to value than investments in U.S. issuers.
- **Floating and Variable Rate Securities Risk** – Floating and variable rate securities provide for a periodic adjustment of the interest rate paid on the

securities. The rate adjustment intervals may be regular and range from daily up to annually, or may be based on an event, such as a change in the prime rate. Floating and variable rate securities may be subject to greater liquidity risk than other debt securities, meaning that there may be limitations on a fund's ability to sell the securities at any given time. Such securities also may lose value.

- **Foreign Investment Risk** - Foreign markets can be more volatile than the U.S. market due to increased risks of adverse issuer, political, regulatory, currency, market or economic developments and can result in greater price volatility and perform differently from financial instruments of U.S. issuers. This risk may be heightened in emerging or developing markets. Foreign investments may also be less liquid and more difficult to value than investments in U.S. issuers.
- **Fund of Funds Risk** - The ability of a fund to achieve its investment objective will depend in part upon the ability of the underlying funds to achieve their investment objectives. There can be no guarantee that any underlying fund will achieve its investment objective.
- **Illiquid Investments Risk** - The risk that illiquid investments may be difficult to sell for the value at which they are carried, if at all, or at any price within the desired timeframe.
- **Income Volatility Risk** - The risk that the level of current income from a portfolio of fixed-income investments declines in certain interest rate environments.
- **Index/Tracking Error Risk** - The risk that a fund's performance may not correspond to its benchmark index for any period of time and may underperform such index or the overall financial market. Additionally, to the extent that a fund's investments vary from the composition of its benchmark index, the fund's performance could potentially vary from the index's performance to a greater extent than if a fund merely attempted to replicate the index.
- **Industry/Sector Concentration Risk** - The risk that focusing on investment in specific industries or sectors makes a fund more vulnerable to developments particularly affecting those industries or sectors than a more broadly diversified fund would be.
- **Industry Concentration Risk** - When a fund concentrates its investments in only one industry and holds securities of relatively few issuers, the value of its portfolio is likely to experience greater fluctuations and may be subject to greater risk than those of other funds.
- **Interest Rate Risk** (a type of **Market Risk**) - The risk that increases in interest

rates can cause the prices of fixed-income investments to decline. This risk is heightened to the extent a fund invests in longer duration fixed-income investments and during periods when prevailing interest rates are low. Currently interest rates in the U.S. and in certain foreign markets are at or near historic lows, which may increase a fund's exposure to risks associated with rising interest rates. In general, changing interest rates could have unpredictable effects on the markets and may expose fixed-income and related markets to heightened volatility.

- **Investment Style Risk**—An account invests in the securities included in, or representative of, an index regardless of their investment merit. An account does not attempt to outperform an index or take defensive positions in declining markets. As a result, an account's performance may be adversely affected by a general decline in the market segments relating to an index.
- **Issuer Risk (often called Financial Risk)** - The risk that an issuer's earnings prospects and overall financial position will deteriorate, causing a decline in the value of the issuer's financial instruments over short or extended periods of times.
- **Large-Cap Risk** - The risk that large-capitalization companies are more mature and may grow more slowly than the economy as a whole and tend to go in and out of favor based on market and economic conditions.
- **Low Carbon Risk** - The risk that because a fund's investment will have special emphasis on companies with low current carbon emissions and limited exposure to fossil fuel reserves, a fund's portfolio might exclude certain issuers for nonfinancial reasons and a fund may forgo some market opportunities that otherwise would be available.
- **Market Risk** - The risk that market prices of portfolio investments held by a fund may fall rapidly or unpredictably due to a variety of factors, including changing economic, political or market conditions. Market risk may affect a single issuer, industry or sector of the economy or it may affect the market as a whole.
- **Market Trading Risks**—ETF shares may be bought and sold in the secondary market at market prices. Although it is expected that the market price of an ETF share typically will approximate its net asset value ("NAV"), there may be times when the market price and the NAV diverge more significantly, particularly in times of market volatility or steep market declines. Thus, you may pay more or less than NAV when you buy an ETF shares on the secondary market, and you may receive more or less than NAV when you sell those shares. Although an ETF's shares are listed for trading on a national securities exchange, it is possible that an active trading market may not develop or be maintained, in which case transactions may occur at wider bid/ask spreads. Trading of an ETFs shares may

be halted by the activation of individual or market-wide trading halts (which halt trading for a specific period of time when the price of a particular security or overall market prices decline by a specified percentage).

- **Market Volatility, Liquidity and Valuation Risk** (types of **Market Risk**) - The risk that volatile or dramatic reductions in trading activity make it difficult for a fund to properly value its investments and that a fund may not be able to purchase or sell an investment at an attractive price, if at all.
- **Mid-Cap Risk** - The risk that the stocks of mid-capitalization companies often experience greater price volatility, lower trading volume and less liquidity than the stocks of larger, more established companies.
- **Mortgage Roll Risk** - The risk that the adviser will not correctly predict mortgage prepayments and interest rates, which will diminish a fund's performance.
- **Non-Diversification Risks** - A non-diversified fund can invest a greater percentage of its assets in the securities of a single issuer than a diversified fund. Investing in a non-diversified fund involves greater risk than investing in a diversified fund because a loss in value of a particular security may have a greater effect on a fund's return since it may represent a larger portion of a fund's total portfolio assets.
- **Non-Investment-Grade Securities Risk** - Issuers of non-investment-grade securities, which are usually called "high-yield" or "junk bonds", are typically in weaker financial health and such securities can be harder to value and sell and their prices can be more volatile than more highly rated securities. While these securities generally have higher rates of interest, they also involve greater risk of default than do securities of a higher-quality rating.
- **Other Investment Companies Risk**—When a fund invests in other investment companies, including ETFs, shareholders bear both their proportionate share of fund expenses and, indirectly, the expenses of the other investment companies. Furthermore, a fund is exposed to the risks to which the other investment companies may be subject.
- **Portfolio Construction Risk** - The risk that an adviser may be influenced by potential conflicts of interest in its construction and management of a fund's portfolio since a fund's performance may affect an affiliated insurance company's exposure under its variable annuity contracts.
- **Portfolio Turnover Risk** – Depending on market and other conditions, a fund may experience high portfolio turnover, which may result in greater transactional

expenses, such as brokerage commissions, bid-ask spreads, or dealer mark-ups and capital gains (which could increase taxes and, consequently, reduce returns)

- **Prepayment Risk** - The risk that during periods of falling interest rates, borrowers may pay off their mortgage loans sooner than expected, forcing, a fund to reinvest the unanticipated proceeds at lower interest rates and resulting in a decline in income.
- **Quantitative Analysis Risk** —The risk that stocks selected using quantitative modeling and analysis could perform differently from the market as a whole.
- **Real Estate Investing Risk** - The risks associated with the ownership of real estate include, among others, declines in the value of real estate, negative changes in the climate for real estate, risks related to general and local economic conditions, competition, decreases in property revenues, increases in prevailing interest rates, property taxes and operating expenses, changes in zoning laws and costs resulting from the cleanup of environmental problems.
- **REITs Risk**—In addition to the risks associated with investing in securities of real estate companies and real estate related companies, REITs are subject to certain additional risks. Equity REITs may be affected by changes in real estate values, rents, property taxes and interest rates. Further, REITs are dependent upon specialized management skills and cash flows, and may have their investments in relatively few properties, or in a small geographic area or a single property type. Failure of a company to qualify as a REIT under federal tax law, or changes to federal tax law or regulations governing REITs, may have adverse consequences to an account. In addition, REITs have their own expenses, and the Fund will bear a proportionate share of those expenses. Many REITs utilize leverage (and some may be highly leveraged), which increases investment risk and could potentially magnify an account's losses.
- **Senior Loan Risk** – Many senior loans present credit risk comparable to high-yield securities. The liquidation of collateral backing a senior loan may not satisfy the borrower's obligation to a fund in the event of non-payment of scheduled interest or principal. Senior loans also expose a fund to call risk and illiquid investments risk. The secondary market for senior loans can be limited. Trades can be infrequent and the values for senior loans may experience volatility. In some cases, negotiations for the sale or settlement of senior loans may require weeks to complete, which may impair a fund's ability to raise cash to satisfy redemptions, pay dividends, pay expenses or take advantage of other investment opportunities in a timely manner. If an issuer of a senior loan prepays or redeems the loan prior to maturity, a fund will have to reinvest the proceeds in other senior loans or instruments that may pay lower interest rates

- **Service Provider Operational Risk**—An account’s service providers, such as the administrator, custodian or transfer agent, may experience disruptions or operating errors that could negatively impact an account. Although service providers are required to have appropriate operational risk management policies and procedures, and to take appropriate precautions to avoid and mitigate risks that could lead to disruptions and operating errors, it may not be possible to identify all of the operational risks that may affect an account or to develop processes and controls to completely eliminate or mitigate their occurrence or effects.
- **Small-Cap Risk** - The risk that the stocks of small-capitalization companies often experience greater price volatility than large- or mid-sized companies because small-cap companies are often newer or less established than larger companies and are likely to have more limited resources, products and markets. Securities of small-cap companies are often less liquid than securities of larger companies as a result of there being a smaller market for their securities, which can have an adverse effect on the pricing of these securities and on the ability to sell these securities when deemed appropriate
- **Sovereign Debt Risk** - The risk that the issuer of non-U.S. sovereign debt or the governmental authorities that control the repayment of such debt may be unable or unwilling to repay principal or interest when due. This may result from political or social factors, the general economic environment of a country, levels of foreign debt or foreign currency exchange rates, among other possible reasons. To the extent the issuer or controlling governmental authority is unable or unwilling to repay principal or interest when due, a fund may have limited recourse to compel payment in the event of default.
- **Special Risks for Inflation-Indexed Bonds** - The risk that interest payments on, or market values of, inflation-indexed bonds decline because of a decline in Inflation (or deflation) or changes in investors’ and/or the market’s inflation expectations. In addition, inflation indices may not reflect the true rate of inflation.
- **Special Risks of Investing in Natural Resources Investments** - The value of a fund’s investments in financial instruments of natural resources issuers and directly in natural resources may be affected by various factors, including increased market volatility, natural events, inflationary pressure and national and international politics, causing a fund to perform poorly. In addition, direct investments in natural resources, such as holding precious metals, are generally more illiquid than securities holdings, which could result in difficulty in their disposal in a timely and favorable manner.

- **Special Situation Risk** - Stocks of companies involved in acquisitions, consolidations, tender offers or exchanges, takeovers, reorganizations, mergers and other special situations involve the risk that such situations may not materialize or may develop in unexpected ways. Consequently, those stocks can involve more risk than ordinary securities.
- **State and Municipal Investment Risk** - Events affecting states and municipalities may adversely affect a fund's investments and its performance. These events may include severe financial difficulties and continued budget deficits, economic or political policy changes, tax base erosion, state constitutional limits on tax increases, and changes in the credit ratings assigned to state and municipal issuers of debt instruments.
- **Style Risk** - The risk that use of a particular investing style (such as growth or value investing) may fall out of favor in the marketplace for various periods of time and result in underperformance relative to the broader market sector or significant declines in the value of a fund's portfolio investments.
 - Risks of Growth Investing - Due to their relatively high valuations, growth stocks are typically more volatile than value stocks and may experience a larger decline on a forecast of lower earnings, or a negative event or market development, than would a value stock.
 - Risks of Value Investing - Securities believed to be undervalued are subject to the risks that the issuer's potential business prospects are not realized, its potential value is never recognized by the market or the securities were appropriately priced when acquired. As a result, value stocks can be overpriced when acquired and may not perform as anticipated.
- **Underlying Funds Risks** - A fund is exposed to the risks of the underlying funds in which it invests in direct proportion to the amount of assets the fund allocates to each underlying fund.
 - **Equity Underlying Funds Risks** - The risks of investing in equity underlying funds include risks specific to their investment strategies, as well as risks related to the equity markets in general, such as:
 - market risk - The risk that the price of equity investments may decline in response to general market and economic conditions or events, including conditions and developments outside of the financial markets;
 - issuer risk - The risk that an issuer's earnings prospects and overall financial position will deteriorate, causing a decline in the value of

the issuer's financial instruments over short or extended periods of time; and

- foreign investment risk - The risks of investing in underlying funds with foreign investments include increased risks of adverse issuer, political, regulatory, currency, market or economic developments than investments in U.S. issuers, which can result in greater market and price volatility. These risks may be heightened in emerging or developing markets. Foreign investments may also be less liquid and more difficult to value than investments in U.S. issuers.
- **Fixed-Income Underlying Funds Risks** - The risks of investing in fixed-income underlying funds include risks specific to their investment strategies, as well as risks related to the fixed-income markets in general, such as:
- credit risk - The risk that a decline in an issuer's financial position may prevent it from making principal and interest payments on fixed-income investments held by a fund when due;
 - interest rate risk - The risk that the value or yield of fixed-income investments may decline if interest rates change, which could adversely affect a Fund's income or the value of its holdings;
 - income volatility risk - The risk that the level of current income from a fund's portfolio of fixed-income securities may decline due to rapid and unpredictable changes in prevailing market interest rates;
 - call risk - The risk that, during periods of falling interest rates, an issuer may call (or repay) a fixed-income security prior to maturity, resulting in a decline in a fund's income; and
 - extension risk - The risk that during periods of rising interest rates, borrowers may pay off their mortgage loans later than expected, preventing a Fund from reinvesting principal proceeds at higher interest rates and resulting in less income than potentially available.
- **Direct Real Estate Underlying Funds Risks** – The risks of investing in direct real estate underlying funds include risks specific to their investment strategies, as well as risks related to investing in real estate in general, such as:
- real estate-related investment risk – The risks associated with exposure to direct real estate through investing in investment vehicles managed by advisers that will primarily invest directly in real estate, which can include declines in real estate values or revenues, uninsured losses at properties, and the absence of

regulatory oversight of and a secondary market for interests in direct real estate underlying funds

- **U.S. Government Securities Risk** – Securities issued by the U.S. Government or one of its agencies or instrumentalities may receive varying levels of support from the U.S. Government, which could effect a fund’s ability to recover should they default. To the extent a fund invests significantly in securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities, any market movements, regulatory changes or changes in political or economic conditions that affect the securities of the U.S. Government or its agencies or instrumentalities in which a fund invests may have a significant impact on a fund’s performance
- **When-Issued, TBA, Delayed Delivery and Forward Commitment Transaction Risk** - At the time of delivery of these types of securities, the value may be more or less than the purchase or sale price. Purchase of securities on a when-issued, TBA, delayed delivery or forward commitment basis may give rise to leverage, and may result in increased volatility of a fund’s NAV. Default by, or bankruptcy of, a counterparty to a when-issued, TBA or delayed delivery transaction would expose a fund to possible losses because of an adverse market action, expenses or delays in connection with the purchase or sale of the pools specified in such transaction.
- **Zero Coupon Bonds Risk**—Because interest on zero coupon bonds is not paid on a current basis, the values of zero coupon bonds will be more volatile in response to interest rate changes than the values of bonds that distribute income regularly. Although zero coupon bonds generate income for accounting purposes, they do not produce cash flow, and thus a fund could be forced to liquidate securities at an inopportune time in order to generate cash to distribute to shareholders as required by tax laws.

Please note that investing in securities involves a risk of loss that clients should be prepared to bear. Also, some of the strategies may involve frequent trading which may increase the brokerage and other transaction costs and taxes associated with such a strategy. These increased costs and taxes may negatively affect the performance associated with such strategies.

Item 9 Disciplinary Information

Federal regulations require TAL to disclose all material facts regarding any legal or disciplinary events that would be material to the evaluation of TAL or the integrity of TAL's management. To that end, TAL discloses the following disciplinary actions:

Chetan Mohan Joglekar (CRD Number 4887506)

Mr. Joglekar has plead not guilty to felony charges against him and eleven other defendants under the following provisions of the Indian penal code for alleged non-payment of loans obtained by two steel and commodity trading companies in India for the purchase of materials under letters of credit: two counts under sections 120-B (punishment of criminal conspiracy) and 467 (forgery of valuable security, will, etc.); and one count under sections 468 (forgery for purpose of cheating), 471 (using as genuine a forged document or electronic record) and 13 (criminal misconduct by a public servant). TAL understands that (1) the term charge has a different meaning under American law than under Indian law and (2) under the Indian legal system, trials are not expected to begin for as long as 15 to 20 years or more after the dates on which charges are filed.

Mr. Joglekar asserts that his role in the alleged transactions was limited to being an authorized signatory within a closely-held group of Indian companies established to trade steel and other physical commodities. He explains that during the relevant period (1995 to 1997), he was fully engaged in different businesses, first as trader of Indian equity securities for a private investment fund, and later as a sell-side equity trader for a broker-dealer, and that he was not part of, and was not aware of, any conspiracy or other criminal activity involving the two steel and commodity trading companies. TAL affiliate, TIAA-CREF Investment Management LLC (Advisers) believes Mr. Joglekar's claims of innocence are credible and continues to employ him as Head of Global Equity Trading of public equity securities. As a reasonable precaution under the circumstances, however, the Advisers will continue to maintain heightened supervision and compliance surveillance over Mr. Joglekar during his employment until such time as these matters are definitely and favorably resolved.

Details of the formal charges are: Charge Sheet No. 123/CP of 2001, CBI Case No. RC 6(E)/99 – CBI/BS&FC/MUM, Court of Additional Chief Metropolitan Magistrate, Esplanade, Mumbai, India (DTD 12/28/2001) and Charge Sheet No. 19/2007, CBI Special Case No. 59 of 2007, RC. BD 1/2005/E/0007, City Civil and Sessions Court, Mumbai, India (DTD 12/31/2007).

Teachers Insurance and Annuity Association of America (TIAA)

On March 17, 2016, TIAA entered into a stipulation with the New York Department of Financial Services (“NYDFS”) to, among other things, findings by NYDFS that TIAA violated various provisions of New York Insurance Law. The stipulation cited violations of NYDFS Regulations 60 and 152 related to replacement and recordkeeping requirements. In connection with the stipulation, TIAA paid a civil penalty in the amount of \$18,112. The stipulation covered the exam period 01/2005 through 12/2008. NYDFS has assessed the remediation plan during the subsequent examination in 2013 with no findings or violations identified related to replacement, illustration, disclosure and recordkeeping requirements. (Docket Case Numbers: State of New York Stipulation No. 2016-0045-S).

This settlement does not involve TAL; however, TAL is an indirect wholly-owned subsidiary of TIAA.

Item 10 Other Financial Industry Activities and Affiliations

TAL has arrangements that are material to its advisory business or its clients with related persons. Also, certain supervised persons of TAL are registered representatives of one or more affiliated broker/dealers.

As discussed above, TAL is a subsidiary of Nuveen Finance, LLC, which is an indirect subsidiary of Nuveen, LLC (“Nuveen”). Nuveen is a subsidiary, and represents the Asset Management division, of Teachers Insurance and Annuity Association of America (“TIAA”), a leading financial services provider. TIAA constitutes the ultimate principal owner of TAL. For additional information on the ownership structure, please see Form ADV Part 1, Schedules A and B.

TIAA’s subsidiaries include various financial industry entities, including broker-dealers, other investment advisers, commodity pool operators and/or commodity trading advisors, banking or thrift institutions, insurance companies or agencies, pension consultants, sponsors or syndicators of limited partnerships, and sponsors, general partners, or managing members of pooled investment vehicles, among other entities. For further information on these subsidiaries, please see Exhibit A.

TIAA is considered a control person of TAL and TIAA’s other financial industry entities may be considered affiliates of TAL under various other regulatory regimes, including as applicable the Investment Advisers Act, the 1940 Act and the Employee Retirement Income Security Act of 1974 (“ERISA”).

Neither TIAA nor its other affiliates have material involvement in TAL’s day-to-day investment determinations on behalf of clients. TAL exercises its own independent investment discretion in accordance with its investment philosophy, fiduciary duties and client guidelines, and TAL maintains certain information barriers designed generally to provide for such independent exercise of investment power.

TAL is committed to putting the interests of its clients first and seeks to act in a manner consistent with its fiduciary and contractual obligations to its clients and applicable law. At times, TAL may determine, in an exercise of its discretion, to limit or refrain from entering into certain transactions, for some or all clients, in order to seek to avoid a potential conflict of interest, or where the legal, regulatory, administrative or other costs associated with entering into the transaction are deemed by TAL to outweigh the expected benefits. Further, certain regulatory and legal restrictions or limitations and internal policies (including those relating to the aggregation of different account holdings by TAL and its affiliates) may restrict certain investment activities of TAL on behalf of its clients. For example, TAL’s investment activities with respect to certain securities, issuers, regulated industries and non-U.S. markets may be restricted where applicable laws or regulations impose limits or burdens with respect to exceeding certain investment

thresholds when aggregated with its affiliates.

TIAA affiliates market, distribute, make referrals of, use and/or recommend investment products and services (including funds and pooled investment vehicles, and investment advisory services) of other affiliates (including TAL), and such affiliates may pay and receive fees and compensation in connection thereto. As a result of the potential additional economic benefit to TAL and/or its affiliates resulting from such activities, there is a potential conflict of interest for TAL, which TAL seeks to mitigate in a variety of ways, depending on the nature of the conflict, such as through oversight of these activities and/or by disclosure in this Brochure. Affiliated broker-dealers and their personnel act as distributors with respect to and/or promote and provide marketing support to affiliated funds and broker-dealer personnel are internally compensated for those activities. Such distribution activities are subject to the broker-dealer's own procedures.

TAL serves as sub-adviser to several affiliated products including UCITS, Retail SMAs and ETFs. Nuveen Fund Advisors, LLC is the adviser for the UCITS and EFT platforms. Nuveen Asset Management, LLC acts as the adviser for the Retail SMAs.

Item 11 Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

TAL has adopted a Code of Ethics (the “Code”) under Rule 204A-1 of the Investment Advisers Act of 1940, as amended (the “Advisers Act”) and Rule 17j-1 of the Investment Company Act of 1940, as amended (the “Investment Company Act”). The Code governs, among other things, the personal trading activities of certain employees or “access persons” and members of their households. Access Persons must at all times place the interests of TIAA and its affiliates and clients above their own. In addition, Access Persons:

- May not attempt to profit personally from their knowledge of recent or contemplated transactions in clients’ accounts including any mutual funds affiliated with TAL.
- Must act in a manner consistent with that of a fiduciary with respect to client accounts.
- Must conduct personal securities transactions consistent with the Code and in such a manner as to avoid any actual or potential conflict of interest or any abuse of a position of trust and responsibility.
- May not purchase or sell a security when they have actual knowledge that a mutual fund or other client account will be trading in that security (or a related security).

Access Persons are required to maintain their brokerage accounts at a limited number of brokerage firms approved by Compliance. While Access Persons and their household members may invest in securities that may also be purchased or held by client accounts, they must pre-clear and report all covered securities transactions as required by the Code. In addition, Access Persons must disclose household members, personal security transactions and holdings information. The Code is designed to ensure that the personal securities transactions, activities and interests of the Access Persons will not interfere with making decisions that are in the best interest of advisory clients. The Code therefore restricts trading in close proximity to client trading activity and restricts personal trading for securities for which the firm is in possession of Material Nonpublic Information. Under the Code, certain classes of securities have been designated as exempt transactions in conjunction with associated rules. Access Persons’ trading is continually monitored under the Code to reasonably detect and prevent conflicts of interest between TAL and its clients. All Access Persons must annually acknowledge their understanding of the terms of the Code. TAL will provide a summary copy of the Code to any client or prospective client upon request.

TAL and its affiliates must also adhere to the restrictions contained in TIAA's Code of Business Conduct, which articulates general standards of ethical conduct for employees, the TIAA-CREF Material Nonpublic Information Policy, the Rumor Policy and the TIAA-CREF Gifts and Entertainment Policy.

Transactions Among Clients

TAL may periodically recommend securities to clients that are also recommended by one or more of its affiliated persons to their clients. TAL has policies and procedures such as the fair allocation policies described in Item 12 to address any conflicts that may arise from such transactions.

TAL may purchase or sell securities for the accounts of its clients in which TAL or a related person may have a position of financial or other interests and may buy or sell for itself securities that it also recommends to its clients. Principal transaction strategies are used primarily in TAL's CDO Advisory Services business to rebalance the various CDO portfolios advised by TAL or to take advantage of other opportunities.

TAL has established a variety of restrictions, procedures and disclosures designed to address any potential conflicts of interest that may arise as a result of these arrangements. Pursuant to these policies, any principal or cross transaction must be fair and equitable, and executed in accordance with the requirements of Section 206(3) the Advisers Act. In addition, the sale price and purchase price in principal transactions and cross transactions will be the market value of the securities.

TAL may execute transactions between its registered investment company and other client accounts it manages, as well as certain other clients managed by its affiliates (including the CREF accounts managed by TIAA-CREF Investment Management, LLC). Any such transactions will be executed in accordance with Rule 17a-7 under the Investment Company Act and procedures adopted by the clients' Boards of Trustees (as applicable). The procedures provide among other things that (1) the transaction was a purchase or sale, for no consideration other than cash payment against prompt delivery of the security for which market quotations were readily available, (2) the transaction was effected at the independent current market price of the security determined as specified in the procedures, (3) the transaction is consistent with the policy of each fund participating in the transaction, as recited in its registration statement, and (4) no brokerage commission, fee (except for customary transfer fees) or other remuneration was paid in connection with the transaction.

In its role as investment adviser to CDOs, TAL may have discretionary authority to buy and sell securities for the CDOs. TAL and/or affiliates may, under certain circumstances, purchase or sell securities to or from its CDOs clients ("Principal Transactions"). TAL may also, under certain circumstances, purchase or sell securities

for a CDOs client account to or from another CDOs client account (“Cross Transactions”). TAL has adopted a policy on all Principal Transactions and Cross Transactions with respect to its CDOs business, which is summarized below.

Under the policy, the sale price in all Principal Transactions and in all Cross Transactions will be the fair market value of the securities purchased or sold. TAL may not directly or indirectly earn any compensation other than its usual advisory fee for affecting a Cross Transaction between its CDOs clients without the explicit authorization of TAL’s CDO Investment Committee. If such compensation is earned, the Cross Transaction must comply with the notice and consent requirements of Section 206(3) of the Advisers Act. Furthermore, all Cross Transactions between a CDOs client and an investment company client of TAL must comply with TAL’s Rule 17a-7 procedures.

Agency Cross Trades

Rule 206(3)-2 under the Advisers Act prohibits advisers (or their affiliates) from acting as brokers for their advisory clients and for parties on the other side of the transactions, unless the following requirements are met:

- The client must prospectively authorize agency cross transactions in writing
- The adviser must disclose to the client in writing the capacities in which it will act and the possibly conflicting division of loyalty and responsibility it may face in an agency cross transaction
- Each agency cross transaction must be confirmed in writing
- The adviser must provide the client with an annual summary of each agency cross transactions
- Client statements must disclose that the client may terminate the agency cross transaction authority at any time by written notice to the adviser

TAL’s investment decisions are limited by the investment criteria established for each client and TAL’s own internal guidelines. In making any investment decision concerning the amount of securities to buy or sell, TAL will consider many factors, including but not limited to, the client’s policies and restrictions, investment objectives, issuer, industry and sector concentration, tax implications, and the size of the investment in relation to the account.

Potential investments undergo a review process taking into account various factors including historical and projected performance and quality of management, transaction structure and current economic condition. In structured transactions, credit enhancement, payment waterfalls, and other structural features are considered. The quality of the

underlying collateral in each transaction is assessed using historical performance data, prepayment characteristics and various stress tests and stimulations. TAL also analyzes the issuer or service from a credit perspective, taking into account the financial strength of the entity, the sector in which it operates and the market conditions confronting such business. TAL evaluates the relative value of each transaction and negotiates pricing. Finally, investment decisions are made by the appropriate individuals or committee in a standardized authorization process.

TAL, when appropriate, will advise its clients to invest in securities that are being purchased by its parent, TIAA. TAL has an established trade allocation policy to seek to ensure that the purchased securities are allocated fairly.

Capital Structure

Conflicts will also arise in cases where different funds or clients of TAL or affiliates of TAL invest in different parts of an issuer's capital structure, including circumstances in which one or more clients or funds may own private securities or obligations of an issuer and other clients or funds may own public securities of the same issuer. For example, a fund may acquire a loan, loan participation or a loan assignment of a particular borrower in which one or more other funds have an equity investment. In addition, different clients or funds may invest in securities of an issuer that have different voting rights, dividend or repayment priorities or other features that may be in conflict with one another. In negotiating the terms and conditions of any such investments, or any subsequent amendments or waivers, TAL or its affiliates may find that their own interests, the interests of clients or accounts/funds could conflict. For example, a debt holder may be better served by a liquidation of the issuer in which it may be paid in full, whereas an equity holder might prefer a reorganization that holds the potential to create value for the equity holders. Any of the foregoing conflicts of interest will be discussed and resolved on a case-by-case basis. Any such discussions will take into consideration the interests of the relevant clients and Funds, the circumstances giving rise to the conflict and applicable laws.

Item 12 Brokerage Practices

Selecting Broker - Dealers

For most arrangements, TAL has authority to select broker-dealers with which to place its clients' portfolio transactions, unless otherwise specifically directed by a client. TAL has no set formula for the distribution of brokerage business in connection with the placing of orders for the purchase and sale of approved investments, and TAL places its orders with brokers with the objective of obtaining best execution. TAL has established "best execution" committees to continually monitor the best execution services, including the parameters and other relevant factors in evaluating brokerage firms and broker execution capabilities. TAL evaluates its distribution of brokerage business in connection with the placing of orders of approved investments.

In evaluating best execution, TAL considers a number of factors, including, without limitation, the following: best price; the nature of the security being traded; the nature and character of the markets for the security to be purchased or sold; the cost of brokerage commissions; the likely market impact of the transaction based on the nature of the transaction; the skill of the executing broker; the liquidity being provided by the broker; the broker-dealer's settlement and clearance capability; the reputation and financial condition of the broker-dealer; the costs of processing information; the nature of price discovery in different markets; and the laws and regulations governing investment advisers.

Since these various factors are weighed in evaluating the abilities of broker-dealers to achieve best execution, transactions will not always be executed at the lowest available commission rate or price. For example, TAL may place orders with brokers providing research, even if the lower commissions may be available from brokers not providing such services. When doing so, TAL will determine in good faith that the commissions negotiated are reasonable in relation to the value of brokerage and research provided by the broker viewed in terms of either that particular transaction or of the overall responsibilities of TAL to its clients, including, for instance, any applicable restriction on the use of soft dollars. In reaching this determination, TAL will not necessarily place a specific dollar value on the brokerage or research services provided to determine what portion of the broker's compensation should be related to those services. Transactions may also involve specialized services on the part of the broker-dealer and would thereby entail higher commissions or their equivalents than would be the case with other more routine transactions. For example, a broker being asked to put up its own capital to complete a trade would be expected to charge a higher commission rate.

When purchasing or selling securities traded on the over-the-counter market, TAL may execute the transactions with a broker engaged in making a market for such securities.

There is generally no stated commission in the case of securities traded in the over-the-counter markets, but the price usually includes an undisclosed dealer mark-up.

Except with respect to Retail SMA Accounts, every broker is formally approved by the Equity Best Execution Committee which is comprised of representatives from Trading, Portfolio Management, Compliance and Law. Risk Management also reviews the creditworthiness of all brokers. The Committee discusses various trading issues including review of policies/procedures, overall execution/trading strategies, broker activity/performance and approves the entire brokerage list. Trades are monitored for best execution purposes throughout the day by the Trading department.

TAL may also utilize Electronic Communications Networks (“ECNs”) and Alternative Trading Systems (“ATs”) to execute purchases and sales of securities where such networks and systems provide the best execution for TAL given the parameters of the orders.

Transactions on equity exchanges, commodities markets and other agency transactions involve the payment of negotiated brokerage commissions. Such commissions vary among different brokers. Transactions in some foreign investments involve the payment of fixed brokerage commissions.

TAL does not use affiliated broker-dealers to execute any trades on its behalf. Also, Client referrals do not play a role in TAL’s broker selection process except with respect to Retail SMA Accounts.

Prohibition on Directed Brokerage Arrangements for Registered Investment Company Clients

TAL has adopted policies and procedures relating to its registered investment company clients to prohibit directed brokerage arrangements prohibited by Rule 12b-1 (h) under the Investment Company Act. This rule prohibits investment companies from using brokerage commissions to compensate any broker-dealer for the promotion or sale of investment company shares. TAL’s policies and procedures prohibit it from using select broker-dealers to execute fund portfolio securities transactions, or directing commissions to broker-dealers in consideration of promotional or sales efforts with respect to the funds. In addition, the funds, their respective investment advisers, and any principal underwriter of the funds may not enter into any agreement (whether oral or written) or other understanding under which a fund directs, or is expected to direct, fund portfolio securities transactions, or any remuneration (including but not limited to any commission, mark-up, mark-down, or other fee or portion thereof received or to be received from the fund’s portfolio transactions effected through any other broker-dealer), to a broker-dealer in consideration for the promotion or sale of fund shares. In particular, commissions may

not be allocated to a broker-dealer in return for sale of the funds, for “shelf space” for the funds, for exposure of funds to the broker-dealer’s sales force or clients, or for any other arrangement that is designed to support or promote the broker-dealer’s sales of the funds’ shares.

Transactions for Initial Purchase of Equity or Debt Instruments

Transactions involving the initial purchase of equity or debt instruments generally involve an investment banker that charges a fee to the issuer of the debt securities. TAL does not directly pay a fee or negotiate the fee.

Research and Services Provided by Broker-Dealers

TAL may execute equity transactions with broker-dealers that provide research and other services that assist TAL in fulfilling its investment management responsibilities. TAL has adopted a policy not to use soft dollars to pay for the research and other services received in connection with the purchase and sale of fixed-income securities.

Consistent with best execution, TAL may place orders with brokers providing research and statistical data services even if lower commissions may be available from brokers not providing such services. With respect to equity securities, TAL has adopted a policy embodying the concepts of Section 28(e) under the Securities Exchange Act of 1934, which provides a safe harbor allowing an investment adviser to cause a client to pay a higher commission to a broker that also provides research services than the commission another broker would charge (generally referred to as the use of “soft dollars”). To utilize soft dollars, TAL must determine in good faith that the commission paid is reasonable in relation to the value of the brokerage and research services provided and that, over time, each client paying soft dollars receives some benefit from the research obtained through the use of soft dollars. TAL may make such a determination based upon either the particular transaction involved or the overall responsibilities of TAL with respect to the client accounts over which it exercises investment discretion (and the clients of its affiliated investment adviser, TIAA-CREF Investment Management, LLC). Therefore, research may not necessarily benefit all accounts paying commissions to such broker. Research obtained through soft dollars may be developed by the broker or a third party, where the obligation to pay is between the broker and the third party. In such cases the research will be paid for through a Commission Sharing Arrangement (CSA) or similar arrangement.

TAL receives an array of services, including, but not limited to, macroeconomic data and statistical data, fundamental and technical data on issuers, information on groups of securities, political developments, pricing and appraisal services, credit analysis, risk measurement analysis, performance analysis and other information which may be relevant to the economy or to a particular investment. Research services may be received

in a variety of forms, including, but not limited to, written reports, periodicals, investment seminars, software and meetings with analysts, issuers, economists and government officials and quotation and news services.

When client brokerage commissions are used to obtain research or other products or services, a benefit is received by TAL because it is not necessary for TAL to pay cash for research, products or services. In addition, TAL may have an incentive to select or recommend a broker-dealer based on TAL's interest in receiving research or other products or services, rather than on TAL's clients' interest in receiving the most favorable execution.

To address conflicts of interests, TAL has adopted policies and procedures for the use of soft dollars. Additionally, TAL may develop specialized policies and procedures for the use of and payment for soft dollars with respect to particular clients.

Client-Directed Brokerage Transactions

TAL does not generally recommend or request that a client direct TAL to execute transactions through a specified broker-dealer. Clients, including certain Retail SMA Accounts, may direct TAL to use a particular broker-dealer, or broker-dealers, to execute portfolio transactions for its account. Where a client directs the use of a particular broker-dealer, or broker-dealers, TAL may not be in a position where it can freely negotiate commission rates or best price, or select broker-dealers on the basis of best price and execution. Additionally, transactions for a client that directs brokerage may not be combined or "blocked" for execution purpose with orders for the same securities or other funds or account managed by TAL. As a result, client-directed brokerage transactions may result in higher commissions or less favorable net prices than would be the case if TAL were empowered to select brokers and dealers to execute transactions for the client's account. In the event of a sale or purchase executed for all or most of TAL's clients, it is the policy of TAL to first execute transactions where TAL is authorized to select the broker followed by client-directed brokerage arrangements.

A client may direct TAL to direct portfolio transactions to broker-dealers that agree to pay custodial, transfer agent or other expenses which would otherwise be paid by clients of TAL or clients of TAL's affiliates. In such circumstances, each client's commissions are used to defray that client's expenses only and are not used for the benefit of any other client. Broker-dealers participation in these arrangements typically also provides TAL with research and brokerage services.

Retail SMA Accounts

Under wrap fee programs (and partially-bundled dual contract arrangements where a

client has contracted with the sponsor for certain services (typically custody, financial advisory, and certain trading, but excluding investment management) on a bundled basis), clients are not charged separate commissions on each trade so long as the program sponsor (or a broker-dealer designated by the sponsor) executes the trade. In these circumstances, a portion of the wrap (or partially-bundled) fee generally is considered as in lieu of commissions or other transaction costs. Where permitted by program terms, TAL may execute a transaction through a broker-dealer other than the program sponsor where TAL believes that such trade would result in the best price and execution under the circumstances. TAL generally trades away from the program sponsor for municipal bond and other fixed income strategies, but may also trade away from the sponsor in other asset classes depending on liquidity and market conditions. In such cases, transaction and other fees are generally included in the net price of the security and not separately disclosed, and in addition to wrap (and partially-bundled) fees. However, in other situations trades will be executed with the program sponsor (or a broker-dealer designated by the sponsor) so as to avoid incurring additional brokerage costs or other transaction costs by using other broker-dealers, in addition to the wrap (or partially-bundled) fee. This is typically the case with equity strategies under normal liquidity and market conditions. Separately managed accounts programs may impose a significant limitation on the ability of TAL to seek best price and execution by placing trades through other broker dealers.

Trade Error Policy

It is the policy of the adviser to review, report, and correct trade errors that occur in connection with client public market securities transactions as soon as possible, so that clients are not disadvantaged as a result of an error. Trading-related exceptions are escalated for review to the Trade Error Committee, a group comprised of six senior-level control partners including representatives from Law, Compliance, Risk Management, Finance and Asset Management Services. The Committee is responsible for determining which trading-related events are deemed to be trade errors and of those, which should be reimbursed. The Committee is also responsible for reviewing potential trade error details and classifying, resolving, documenting, and monitoring trade errors in client accounts managed by the adviser. In addition, the Committee oversees related client reimbursements, and provides guidance and support to business areas to amend policies and procedure in order to prevent future reoccurrences.

For trade errors that occur in Retail SMA Accounts, TAL generally does not have the ability to control the ultimate resolution of the trade error. In these instances, the trade error and resolution thereof will be governed by the program sponsor's policies and procedures or directions. Certain program sponsors establish trade error accounts for their programs whereby gains for certain errors in client accounts managed by TAL are offset by losses in other client accounts managed by TAL in the same program(s) over varying

time periods. This offsetting of gains with losses could result in a benefit or detriment to TAL.

Policies Regarding Aggregation and Allocation of Orders

Equity Securities Policy

TAL has adopted aggregation and allocation of orders procedures designed to treat each account fairly and equitably over time in the allocation of investment opportunities and the aggregation and allocation of trades. The procedures also impose restrictions on potentially inconsistent trading and provide guidelines for trading priority. Moreover, TAL's trading activities are subject to supervisory review and compliance monitoring to help address and mitigate conflicts of interest and ensure that accounts are being treated fairly and equitably over time. In determining whether an account's participation in an order is appropriate, TAL considers the account's investment objectives, investment restrictions, cash position, need for liquidity, sector concentration, brokerage considerations relating to the account and other criteria.

TAL may aggregate or "bunch" orders of various accounts, including registered investment companies, unregistered investment companies, TIAA, other proprietary accounts and client accounts of TAL's affiliates (e.g., CREF accounts managed by TIAA-CREF Investment Management, LLC ("TCIM")), consistent with TAL's policy to seek best execution for its orders.

In summary, subject to best execution considerations, client directed brokerage and bundled arrangements relating to Retail SMA Accounts, open orders for the same single security are aggregated with other orders for the same single security received at the same time as well as with open or unfilled portions of earlier orders of the same single security. If aggregated orders are fully executed, each participating account is allocated its pro-rata share on an average price and trading cost basis. In the event the order is only partially filled, each participating account receives a pro-rata share of the securities purchased (or a pro-rata share of the proceeds of securities sold) based on the size of its order relative to the aggregated order.

However, basket trades (trades in a wide variety of securities-on average approximately 100 different issuers) are not aggregated with orders for the same security in other baskets or with single security orders for the same name. Because of their size, execution of the basket trades occur in stages and TAL must be able to monitor characteristics (e.g., cash, region, sector, beta, neutrality) of the baskets in the aggregate in order to be able to make changes to the baskets as necessary. In certain instances (e.g., portfolio transitions), single name aggregation may occur if a trader determines that, based on basket characteristics as well as total volume to be traded and

the illiquid nature of a particular security, one or more large single orders within a basket should be removed from the basket and aggregated with other orders (whether single security trades or other basket trades) to achieve best execution.

The procedures also impose restrictions on potentially inconsistent trading of single securities. For example, a portfolio manager of TAL may not sell a single security short for an account if the same portfolio manager either is long in the security or is neutral or overweight the long position against the benchmark of the account holding the securities long. Similarly, a portfolio manager may not buy a security long if the same portfolio manager has a short position in the same security. This limitation does not apply to a portfolio manager buying a security to close or reduce a short position or underweight long position against the benchmark of an account. This limitation also does not apply to securities, futures, or derivative instruments representing broad-based indices or baskets of underlying securities (e.g., certain exchange traded funds that track index of broad based securities) or trades for model-driven quantitative strategies. Basket trades do not have the same types of restrictions on potentially inconsistent trading because they are tailored to a particular index or model portfolio based on the risk profile of a particular account pursuing a particular quantitative strategy.

In addition, the procedures set forth guidelines for long and short trades. Both long and short trades are generally routed by portfolio managers to the same trading desk except with the exception of Retail SMA Accounts. Single security trades (both long and short) are time-recorded and prioritized for execution based on when they are received by the trading desk.

Basket trades, however, are not subject to the same trading priority guidelines because they are used to pursue quantitative strategies and rely on an automated process to implement trades on an as needed basis (as indicated by the relevant index or model), subject to rotation if basket trades for one account closely precede transactions in the same or closely related securities in a different account. In addition, TAL does not place basket trades in a manner that it believes will materially move the market price of securities because these trades are subject to TAL's daily internal volume limits based on percentages of daily trading and designed using historical data to minimize to the extent possible the price impact of trading volumes.

Exceptions to TAL's aggregation and allocation of orders procedures must be approved in accordance with the procedures.

Fixed Income Securities Policy

The mandate of the Fixed Income Trading Desk is to operate in a fiduciary capacity on behalf of all clients and to act in their best interest when trading securities. The Fixed

Income Desk continually seeks to obtain the overall best trade execution given prevailing market conditions while utilizing approved broker-dealers as authorized by the Best Execution Committee.

Fixed income trades are typically executed on a net yield basis – the dealers through whom we execute client trades do not charge explicit commissions, commission equivalent (e.g., separately identifiable mark-ups and mark-downs in such transactions) or spreads. All fixed income orders entered into Bloomberg AIM, the fixed income trading system, are aggregated to assist in the best execution of trade orders. Any original multiple account order that is not completely filled after the initial trade execution is then allocated pro-rata automatically by AIM and incorporates the firm-wide de minimis and rounding requirements. The allocation is made pro-rata by account, based upon the original trade order each account’s portfolio manager entered into AIM or communicated to the trading desk using pre-established AIM rules.

Post trade allocation, should a portfolio manager notify the trading desk that they wish to transfer a portion of or an entire allocation from one account to another account, a written exception request must be submitted to Global Public Markets management for review and approval. In cases where a portfolio manager opts to *withdraw* their entire allocation, either the balance will be offered to the remaining accounts on a pro-rata basis or the withdrawn balance will be sold in the secondary market, with performance attribution being assigned to the original portfolio account.

The Fixed Income industry does not generally engage in the use of Soft-Dollars or directed trades. Therefore, fixed income research provided by our Broker-Dealer’s is not a criterion considered when executing trades. Fixed income research and related services are provided by our counterparts with a view that they are a cost of doing business and an important means of sustaining long term relationships.

The Fixed Income Trading Desk does not employ the use of a voting system to rate Broker-Dealers with the intent of using those rankings to direct or allocate trades. The quality of research, credit opinions or relative value trade recommendations that are provided by our counterparts are periodically evaluated but there is no connection between rankings and our selection of a particular Broker-Dealer for trade execution.

The Fixed Income Trading Desk does not execute trades for the Retail SMA Accounts.

IPO Allocation Policy

TAL has adopted written procedures with respect to allocation of initial public offerings (“IPOs”). Allocations of IPOs by TAL will be made in a fair and equitable manner consistent with its fiduciary obligations. Portfolio managers wishing to participate in a particular IPO or Secondary Offering must communicate their indications to the trading

desk either in writing, through a secure computer system, or by calling the trading desk. The trading desk enters the indications into an IPO database. Portfolio managers will make the same decision for each account managed assuming cash is expected to be available for that account and subject to contingencies based on cash constraints or other suitability criteria. In situations where IPO or Secondary Offering shares allocated to the firm are less than the total amount of shares TAL indicated for all portfolio managers, default allocations among portfolio managers who have indicated for the IPO or Secondary Offering will be done pro rata, based on the amount of assets of the portfolio manager manages for each portfolio participating, subject to a ceiling based on the maximum amount indicated for each portfolio to ensure that the portfolio does not receive more shares than it had indicated for.

TAL has put procedures in place to handle situations where allocations are to be changed after the order is placed, provided the reason for the change is in writing and signed off by appropriate senior management of TAL.

Allocation relating to Retail SMA Accounts

TAL endeavors to treat clients fairly and equitably over time with respect to trading sequencing and allocation. Where there are constraints on the use of aggregate orders, such as in the case of Retail SMA Accounts programs, or where TAL does not handle trading, such as in the case of the delivery of model portfolios, TAL employs, where appropriate, procedures that may include (i) employing the use of one or more execution or order delivery rotations among clients; (ii) executing orders or delivering model recommendations for different clients at approximately the same time; or (iii) other methods as may be developed from time to time. While these procedures are designed to treat clients in a fair and equitable manner over time, on any given order, some accounts may trade before other accounts, and some accounts may receive more favorable pricing than other accounts for the same security.

Item 13 Review of Accounts

Portfolio managers or their designees review on a coordinated basis TAL's clients' accounts for which they are responsible. . When client accounts are reviewed, the portfolio manager considers various matters, including any changes in firm policy or the objectives and needs of the client; changes in market conditions or changes of security positions, the current structure of the portfolio; if appropriate, the tax consequences of any transactions and, the effect on the portfolio of any known additions or withdrawals from the account in the future.

The TIAA Public Investments Oversight Committee is an internal management committee established as a sub-committee of Nuveen Risk, Investments and Compliance Committee (the "Nuveen RICC") to oversee the investment risk, and compliance risk profiles, the design and implementation of risk management and compliance frameworks, and to report up to Nuveen RICC in fulfilling its risk and compliance oversight responsibilities for funds managed by portfolio managers.

With respect to its registered investment company clients, TAL monitors portfolios daily as well as reports on the investment performance of the investment companies to their respective Boards of Trustees at regularly scheduled meetings. With respect to unregistered private funds, TAL reviews transactions to ensure that the amounts committed to the market in general, and the investments selected in particular, are consistent with each client's objective, and purchases and sales in any account are not excessive in size and frequency relative to the financial resources of the client. With respect to separate accounts, TAL may undertake reviews as a result of clients' requests. Such reviews may address performance of accounts, investment objectives, securities positions and other investment opportunities.

For its CDOs business, TAL considers ongoing account review and credit surveillance to be as important as the initial investment decisions and actively monitors its clients' portfolios. TAL's analysts specialize by asset class and each is responsible for ongoing monitoring and analysis of a portion of the CDOs portfolios. The surveillance process includes regular reviews of underlying collateral performance. These reviews are conducted through the use of various spreadsheets and both internal and 3rd party models. Analysts also maintain as needed communications with rating agencies, broker-dealers and other market participants.

In general, TAL provides monthly or quarterly client reports pursuant to its investment management agreements or other types of documents governing its advisory accounts.

For Retail SMA Accounts, clients generally receive reports regarding holdings, transactions and performance from the program sponsor or financial intermediary.

Item 14 Client Referrals and Other Compensation

TAL is not currently engaged in cash solicitation arrangements under Rule 206(4)-3 of the Advisers Act in connection with its advisory business.

In appropriate instances, TAL and its related persons refer business to each other with respect to each other's products and services. Prospects and clients to whom such referrals have been made should be aware of the conflict inherent in such referral as a result of the common control of such parties. See Item 10.

The following disclosure applies with respect to Retail SMA Accounts and funds advised by TAL or its affiliates for which Nuveen Securities, LLC provides distribution support.

In the ordinary course of business, TAL or a related person provides corporate gifts, meals and entertainment such as golfing and tickets to cultural and sporting events to personnel of firms that do business with TAL or its affiliates. Such gifts, meals and entertainment provided by TAL or a related person generate a conflict of interest to the extent that they create an incentive for the recipient or beneficiary to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL. In the ordinary course of business TAL employees also are the recipients of corporate gifts, meals and entertainment. TAL's receipt of gifts, meals and entertainment generates a conflict of interest to the extent that they create an incentive for the recipient or beneficiary to use the services of the provider (e.g., in the case of a broker-dealer, brokerage services) of the gifts, meals and entertainment. The giving and receipt of gifts and other benefits are subject to limitations under internal policies and procedures.

TAL may pay fees to consultants for their advice and services, industry information or data, or conference attendance. If a particular payment constitutes, in TAL's judgment, a client solicitation arrangement under Rule 206(4)-3 under the Advisers Act, TAL will comply with the provisions of the Rule. The payment of fees to consultants generates a conflict to the extent that such payment creates an incentive for the recipient or beneficiary to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL.

As a company under common control with Nuveen Investments, TAL is affiliated with the Nuveen Investments Wealth Management Services group, a division of Nuveen Investments that provides free general educational services to financial intermediaries who typically offer or use products or services of TAL and/or its advisory affiliates. Nuveen Investments Wealth Management Services makes available various financial and educational tools, reports, materials and presentations on current industry topics relevant

to a financial advisor. Certain financial tools and illustrations may use data provided by a financial advisor. Materials and services provided by the Nuveen Investments Wealth Management Services group are not intended to constitute financial planning, tax, legal, or investment advice and are for educational purposes only. The provision of Nuveen Investments Wealth Management services and materials generates a conflict of interest to the extent that such provision creates an incentive for the recipient or beneficiary to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL.

In the ordinary course of business, TAL (or an affiliate) may make payments to firms or persons that use, recommend, offer or include products or services of TAL (and its affiliates) in a particular program, include TAL (and its affiliates) in a preferred list of advisers, or refer clients to TAL (or its affiliates). The types of payments include, without limitation, conference, program or event attendance, participation or exhibition sponsorship fees; educational and training fees; license, data access, operational or administrative fees; or fees linked to program participation or specific marketing initiatives within an existing program or new program. The amounts of such payments, which are generally made on an enterprise-wide basis, can be significant for certain SMA program sponsor or financial intermediary firm recipients (e.g., up to or in excess of \$1 million annually). TAL (or an affiliate on TAL's behalf) sometimes pays travel, meal and entertainment expenses for a firm's representatives and others who visit TAL's offices or other locations (including hotels and conference centers) to learn about its products and services. The foregoing payments generate a conflict to the extent that they create an incentive for the recipient or beneficiary of the payment to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL.

TAL also may make charitable contributions or underwrites or sponsors charitable events at the request of others. Payments described above vary significantly from firm to firm depending on the nature of TAL's and its affiliated investment advisers' separate account activities with the firm and the amount of the firm's separate account client assets under TAL's and its affiliated investment advisers' management. Such contributions generate a conflict to the extent that they create an incentive for the recipient or beneficiary of the payment to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL. Payments are subject to TAL or a related person's internal review and approval procedures.

Retail SMA Account clients are encouraged to request and review materials from program sponsors (such as a sponsor's program brochure) describing business and financial terms and arrangements between program sponsors and investment advisers. All

clients are encouraged to make relevant inquiries of their financial advisory firms and financial advisors, consultants and other intermediaries regarding the arrangements and practices described above.

Item 15 Custody

Where TAL has control of the client's selection of a custodian, TAL uses qualified third-party custodians to custody client assets. Clients should receive at least quarterly, statements from the broker dealer, bank or other qualified custodian that holds and maintains the client's investment assets. TAL urges clients to carefully review such statements and compare such official custodial records to the account statements that TAL may provide to its clients. TAL's statements may vary from custodial statements based on accounting procedures, reporting dates or valuation methodologies of certain securities. TAL's statements are not intended to be a substitute for account statements provided by a qualified custodian, and should not be used for official purposes.

In the event of an inadvertent receipt of a check or other financial instrument payable to a client, TAL reserves the right to send the check or instrument to the client or its custodian rather than back to the original sender when it believes that such procedure provides the best overall protection for the underlying assets.

For Retail SMA Accounts, individual clients who seek to direct transfers or payments from their advisory account to third parties (e.g., to pay bills or transfer funds) should directly contact and instruct the account's custodian and/or primary financial advisor. It is generally outside the scope of TAL's authority and services to process or intermediate such instructions.

Item 16 Investment Discretion

TAL is responsible for decisions to buy and sell securities for its registered investment company clients, its CDO clients, in connection with its institutional asset management business, and for Retail SMA Accounts where TAL exercises discretion. TAL's authority is subject to certain limits, including written information received by TAL regarding the clients' investment objectives, guidelines and reasonable restrictions as well as regulatory constraints. TAL reserves the right to decline or terminate accounts with investment restrictions that are unduly burdensome or materially incompatible with TAL's investment approach (including restrictions affecting more than a stated percentage of the account).

With respect to TAL's registered investment company clients, such investment limitations are set forth in the client's registration statement filed with the SEC. Also, TAL's authority to trade securities for its registered investment company clients may also be limited by certain federal securities and tax laws.

Most clients are required to execute an agreement or other authorization prior to TAL's assumption of discretionary authority.

For Retail SMA Accounts through wrap fee programs (i.e., non-dual contract), TAL is appointed to act as an investment adviser through a process generally documented and administered by the program sponsor. Clients participating in a program, generally with assistance from the sponsor, may select TAL to provide investment advisory services for their account (or a portion thereof) in a particular strategy. TAL provides investment advisory services based upon the particular needs of the wrap fee program client as reflected in information provided to TAL by the sponsor, and will generally make itself available for direct consultations as reasonably requested by clients and/or sponsors. Clients are encouraged to consult their own financial advisors and legal and tax professionals on an initial and continuous basis in connection with selecting and engaging the services of an investment manager in a particular strategy and participating in a wrap or other program. In the course of providing services to program clients who have financial advisors, TAL generally relies on information or directions communicated by the financial advisor acting with apparent authority on behalf of its client. In addition to the foregoing, TAL may provide its services on a non-discretionary and model portfolio basis.

See also Item 4.

Item 17 Voting Client Securities

Rule 206(4)-6 under the Advisers Act requires that investment advisers exercising voting authority on behalf of their advisory clients must adopt and implement written policies and procedures reasonably designed to ensure that proxies are voted in a manner that reflects the best interests of clients. In its capacity as fiduciary and discretionary investment manager, TAL votes the proxies of publicly traded companies held by its mutual funds, separately managed accounts, unregistered funds and separate account clients (including discretionary Retail SMA Accounts) in accordance with the guidelines established by the Committees on Corporate Governance and Social Responsibility (“CGSR Committees”).

TAL has a dedicated team of professionals responsible for reviewing and voting proxies. In analyzing a proposal, in addition to exercising their professional judgment, these professionals utilize various sources of information to enhance their ability to evaluate the proposal. These sources may include research from third- party proxy advisory firms and other consultants, various corporate governance-focused organizations, related publications and our investment professionals. Based on their analysis of proposals and guided by the TIAA-CREF Policy Statement on Corporate Governance (the “Policy Statement”), these professionals then make recommendations intended solely to advance the best interests of the participants. Individuals, including portfolio managers, research analysts and/or other personnel are solely and ultimately responsible for voting proxies on portfolio securities owned or managed on behalf of clients of TAL consistent with the best interests of the client and may override recommendations at any time. Occasionally, when a proposal relates to issues not addressed in the Policy Statement, TAL may seek guidance from the CGSR Committees.

TAL believes that it has implemented policies, procedures and processes designed to prevent conflicts of interest from influencing proxy voting decisions. These include: (i) oversight by the CGSR Committees; (ii) a clear separation of proxy voting functions from external client relationship and sales functions; and (iii) the active monitoring of required annual disclosures of potential conflicts of interest by individuals who have direct roles in executing or influencing proxy voting (e.g., TAL’s proxy voting professionals, or trustees or senior executives of TAL or TAL’s affiliates) by TAL’s legal and compliance professionals.

There could be rare instances in which an individual who has a direct role in executing or influencing proxy voting (e.g. TAL’s proxy voting professionals, or a trustee or senior executive of TAL or TAL’s affiliates) is either a director or executive of a portfolio company or may have some other association with a portfolio company. In such cases,

this individual is required to recuse himself or herself from all decisions related to proxy voting for that portfolio company.

A report of proxies voted for the registered investment company clients is made regularly to their Boards or its Committee on Corporate Governance and Social Responsibility, noting any proxies that were voted in exception to the Policy Statement. Also, a record of the proxy votes cast over a twelve month period for TAL's registered investment company clients can be obtained, free of charge, at www.tiaa.org or on the SEC's website at www.sec.gov. Copies of TAL's proxy voting policy are also available to TAL's clients upon request.

Legal Proceedings

TAL is under no obligation to advise or act for clients in legal proceedings including bankruptcies and class actions involving securities purchased or held in client accounts. TAL generally notifies or transmits copies of legal materials it receives to the client, program sponsor, client custodian or other client representative.

Item 18 Financial Information

TAL does not require or solicit prepayment of investment advisory fees. TAL has no financial commitment that impairs its ability to meet contractual and fiduciary commitments to clients.

Exhibit A
TIAA Subsidiaries

Primary Financial Industry Subsidiaries under Nuveen, LLC, the asset management division of TIAA

| Entity Name | Primary Financial Industry or Related Affiliation* |
|--|---|
| AGR Partners, LLC | Registered Investment Adviser |
| Churchill Asset Management LLC | Registered Investment Adviser |
| Greenwood Resources Capital Management LLC | Registered Investment Adviser |
| Gresham Investment Management LLC | Registered Investment Adviser CFTC Registered Commodity Pool Operator CFTC Registered Commodity Trading Advisor |
| Nuveen Asset Management, LLC | Registered Investment Adviser CFTC Registered Commodity Trading Advisor |
| Nuveen Fund Advisors, LLC | Registered Investment Adviser CFTC Registered Commodity Pool Operator |
| Nuveen Investments Advisers, LLC | Registered Investment Adviser |
| NWQ Investment Management Company, LLC | Registered Investment Adviser |
| Santa Barbara Asset Management, LLC | Registered Investment Adviser |
| Symphony Asset Management LLC | Registered Investment Adviser |
| Teachers Advisors, LLC | Registered Investment Adviser |
| TIAA-CREF Alternatives Advisors, LLC | Registered Investment Adviser |
| TIAA-CREF Investment Management, LLC | Registered Investment Adviser |
| Westchester Group Investment Management, Inc. | Real Estate Broker or Dealer |
| Winslow Capital Management, LLC | Registered Investment Adviser |
| Nuveen Securities, LLC | Registered Broker Dealer |
| Teachers Personal Investors Services, Inc. | Registered Broker Dealer |
| Nuveen Commodities Asset Management, LLC | CFTC Registered Commodity Pool Operator |
| Nuveen Services, LLC | Shared services entity |
| Nuveen Investments Canada Co. | Canadian marketing affiliate |
| Henderson Real Estate Asset Management Limited | UK FCA Registered Investment Adviser |
| Henderson Property UK AIFM Limited | Investment Adviser UK FCA Registered Investment Adviser |
| Nuveen Global Investments Ltd | UK FCA Registered Exempt CAD Firm |
| TIAA-CREF Asset Management UK Limited | UK FCA Registered Investment Adviser |
| TIAA Global Asset Management London Limited | UK FCA Registered Investment Adviser |

Other Primary Financial Industry Subsidiaries of TIAA

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| TIAA-CREF Individual & Institutional Services, LLC (aka TIAA-CREF Advice and Planning Services) | Registered Investment Adviser Registered Broker Dealer |
| TIAA-CREF Tuition Financing, Inc. | Registered Investment Adviser Registered Municipal Advisor |
| Covariance Capital Management, Inc. | Registered Investment Adviser CFTC Registered Commodity Pool Operator |
| Kaspick & Company, LLC | Registered Investment Adviser |
| Teachers Insurance and Annuity Association of America | Insurance Company or Agency |
| TIAA-CREF Life Insurance Company | Insurance Company or Agency |
| TIAA-CREF Insurance Agency, LLC | Insurance Company or Agency |
| TIAA-CREF Trust Company, FSB | Banking or thrift institution |

*The list above refers to TIAA subsidiaries in financial industry affiliation categories referenced in Form ADV, Part 2A, Item 10.C, excluding numerous entities organized primarily to serve as sponsor, general partner, managing member (or equivalent) or syndicator of one or more pooled investment vehicles or limited partnerships (or equivalent). For a list of such entities that have material arrangements with the registrant, please see the registrant's Form ADV, Part 1, Section 7.A. of Schedule D. The list above refers to the primary

financial industry affiliation category and certain TIAA subsidiaries listed above may have additional financial industry affiliations, as further described in its respective disclosure documents (Form ADV, in the case of a registered investment adviser).